

COMMERCIAL REFRIGERATION & AIR CONDITIONING

Air conditioning plays a major role in the annual international ventilating show, this year held in Chicago's International Theatre January 26 to 30. The show is the 59th Annual Meeting of the American Society of Heating and Ventilating Engineers.

Twenty-odd manufacturers of industrial air conditioning systems introduced all-year round units; among them Niagara Furnace Division, Borg-Warner Division, and Meyer Furnace Company. Others in the home heating and cooling field for the first time played window-type units, and D'Agostino said the section of his Hawthorne would have General Electric cooling in each of 65 homes in the completely air conditioned in the \$22

Small Conditioner Sees Rise In Washington

WASHINGTON, D. C. — Air conditioners under Metropolitan-area retailer in months of this units, compared

**450-HOME PR
AIR CONDITI**
largest

The largest
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Known
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**185-HOME DEVELOPMENT
HAS YEAR-ROUND UNITS**

A glimpse of the new Home—Today" was offered to the public with the formal opening of the first unit of a 185-home development at Stratton Heights, in the Wilmot Woods area of New Rochelle, N. Y., the largest residential community in the east to be fully air conditioned for year-round comfort.

The new homes, built with Carrier Weathermaker air conditioning units providing cooling in months and heating in winter control, will

**RE-FAB HOMES IS
E AIR CONDITIONED**
For the first time, year-
round air conditioning is to
be generally available
in the \$5,000 to

Many business men have proved that conditioning pays for itself. Not only do attract higher quality efficiency of work ing hot spell employ

Crane Com
vision, Viking Air
pany, and others.
Furthermore, a n
self-contained cooling
with force

ROOM UNIT
SET AT 412.000

Shipments of window and console type air conditioning units during 1952 totaled 341,000 units with a manufacturers sales value of \$66,180,000, according to an estimate released recently by Air Conditioning and Refrigerating Machinery Association.

"through-the-wall" mounted
keep the attractive glass
windows completely clear.
By using plug-in air
the cost of installing a
as saved and
of ducting

He told a meeting of G-E distributors here that this would be down last year's total, with new and old homes

Levine thinks that of the predicted 50,000 homes for this year dwellings.

Air conditioning as a feature is catching on fast, he declared. Those that have in their houses last year to be a big sales attraction. The G-E official reports a recent nationwide survey of prominent builders by the firm's Fort Worth office shows that 60 per cent of night shift workers

THE NIGHT SHIFT Workers at Remington Arms Co., Inc., are insulated from heat by wearing protective clothing. This helps them stay cool during their shift.

Home Air Conditioning
Tonic of Lehigh Conference

Realizing that there are a number of unsolved problems involved in the design, manufacture, and installation of year-round residential air conditioning equipment, the Mechanical Engineering Department of Lehigh University is calling a conference on January 25, 1967.

This National Magazine Comes to You With the Compliments of

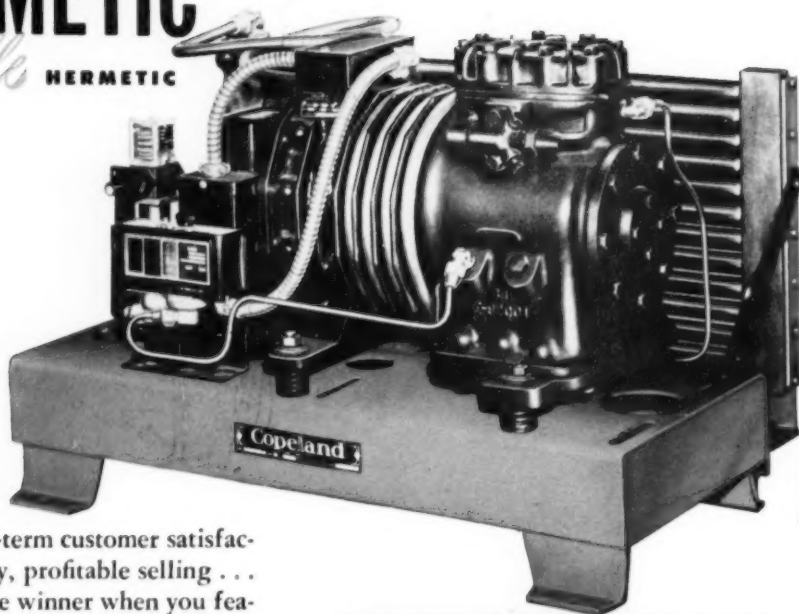
A. E. **BORDEN** CO.
— INC —

for refrigeration supplies and equipment.

You never had it so dependable

COPELAMETIC

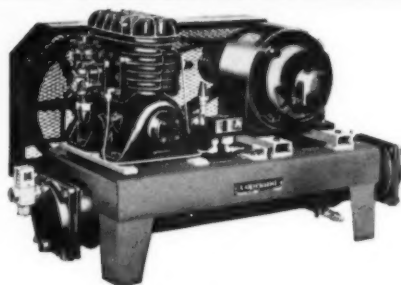
THE *Accessible* HERMETIC



For long-term customer satisfaction . . . for easy, profitable selling . . . you've got a sure winner when you feature the Copeland line. Candidate for top honors in refrigeration ingenuity is the practical COPELAMETIC . . . the Accessible hermetic. These compact, quiet, rugged units can show a 90% saving in maintenance. There is a size for every application, remote or self-contained.

When you sell Copeland equipment, you offer soundly-engineered products backed by consistent promotion to your customers.

WRITE FOR BULLETIN C-52A

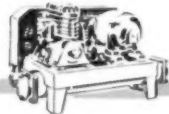


OPEN-TYPE UNITS

Copeland open-type units are available in air-cooled models $\frac{1}{4}$ H.P. through 3 H.P. and water-cooled models $\frac{1}{3}$ H.P. through $7\frac{1}{2}$ H.P. Specification data on request.



Copeland
DEPENDABLE *Electric* REFRIGERATION

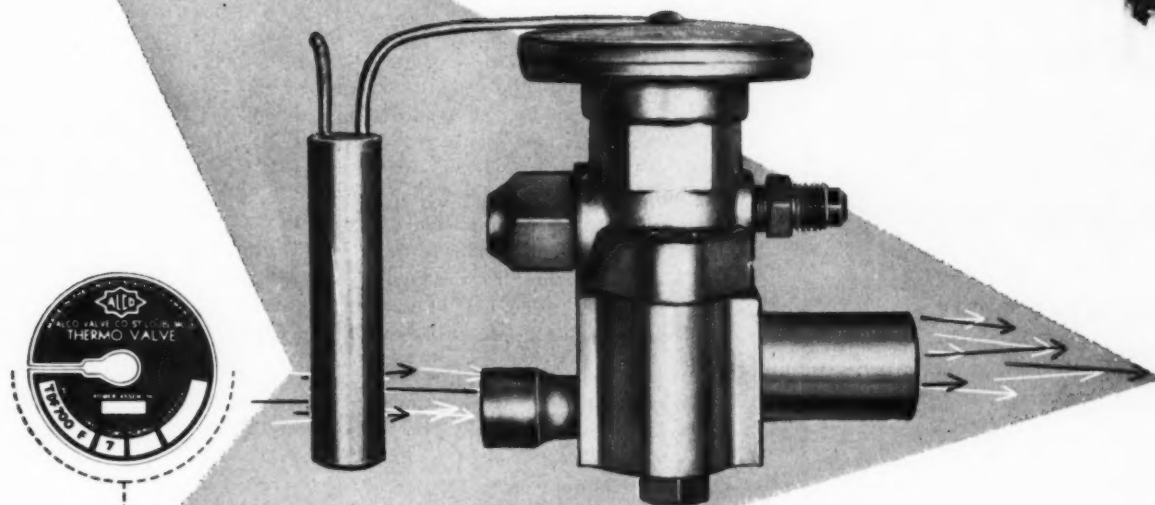


REFRIGERATION UNITS (OPEN-TYPE AND COPELAMETIC) WATER COOLERS

COPELAND REFRIGERATION CORPORATION • SIDNEY, OHIO

Circle No. 1 on Reader Service Card

NEW! for tight spots



ALCO "T" SERIES THERMO VALVES with

"STRAIGHT-THROUGH" CONNECTIONS

New description code for all ALCO VALVES: The type number expresses the capacity:

EXAMPLES:

TCL 200 = 2 tons

THL 5000 = 50 tons

This makes it easier for you to select the right valve, to keep stock and to avoid errors.

Easy to install in tight spots. You work from above... no twisting and turning. "Straight-through" connections fit over any type of distributor. They give you the same easy, on-the-line servicing features as Alco "T" Valve with angle-type connections.

When ordering, please specify whether "angle-type" or "straight-through" connections are desired. For "Freon-12", "Freon-22", Methyl Chloride. Write for further information.

SEE YOUR ALCO WHOLESALE



Designers and Manufacturers of Thermostatic Expansion Valves; Evaporator Pressure Regulators; Solenoid Valves; Float Valves; Float Switches.

ALCO VALVE CO.

843 KINGSLAND AVE. • ST. LOUIS 5, MO.

5548

Circle No. 2 on Reader Service Card

and AIR CONDITIONING • APRIL, 1953

BRUNNER
SINCE 1906

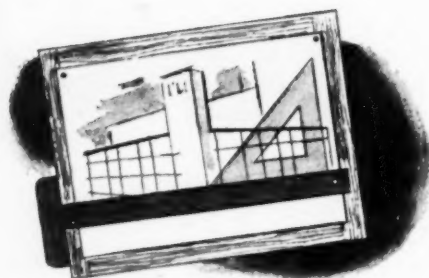
DESIGNED

FOR YOUR

AIR

CONDITIONING

REQUIREMENTS

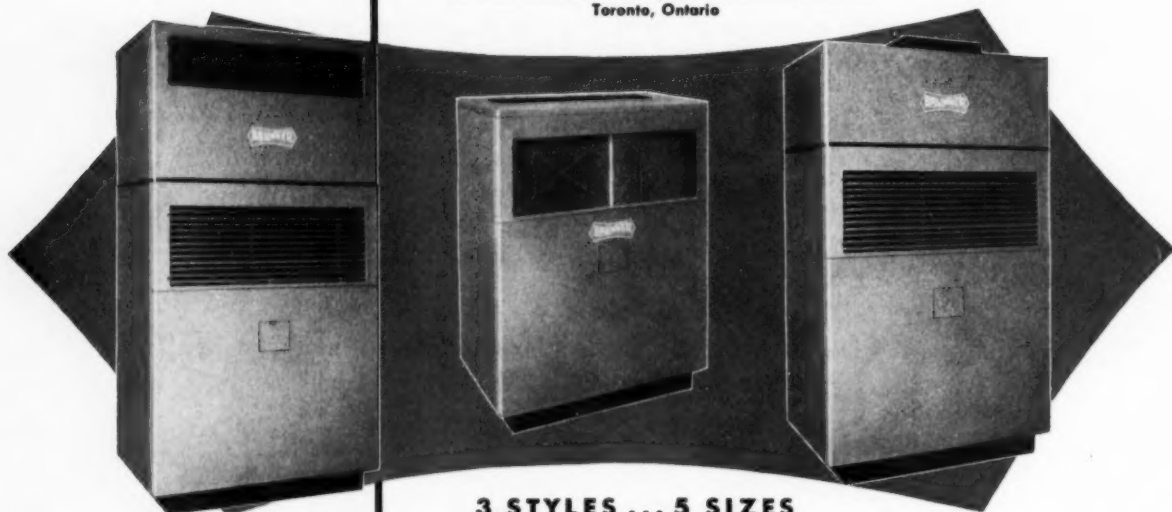


For the many installations where efficiency and economy must be combined with application flexibility—these new "packaged" BRUNNER AIR CONDITIONERS are the answer! Precision-built, powered by the famous Brunner quiet slow-speed compressors—these self-contained units permit complete freedom of application planning for every type of job. Easy to install anywhere—and, like all Brunner products, they are engineered for fast, simple servicing in the field.

15 models to choose from—for within room-circulating or remote duct operation. Attractive enamel cabinets clean easily—blend into any decorative plan. A FIVE YEAR WARRANTY on the Brunner Compressor in every unit assures satisfactory service. See these BRUNNER Air Conditioners... see how they can fit profitably into your air conditioning picture...

Brunner Manufacturing Company
Dept. G-43, Utica, New York, U. S. A.

IN CANADA: Brunner Corporation (Canada) Limited
Toronto, Ontario



3 STYLES ... 5 SIZES

Brunner Air Conditioners are available in 3 styles (shown above)—each style in 2, 3, 5, 7½ and 10 H.P. sizes. Complete information, specifications and ratings sent upon request.

YOU'LL ALWAYS BE GLAD YOU SOLD A

BRUNNER
SINCE 1906

Established in 1944 as
THE REFRIGERATION INDUSTRY, this
 magazine has no official affiliation with
 any group, society, or association.

COMMERCIAL REFRIGERATION & AIR CONDITIONING

APRIL, 1953

VOLUME 10, NO. 4

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**FLOW
 APPLIED HYDRAULICS
 INDUSTRY AND WELDING
 OCCUPATIONAL HAZARDS
 PRECISION METAL MOLDING**

and AIR CONDITIONING

In this issue you will find a special 32-
 page section devoted exclusively to the presentation
 of key specifications of window and store type pack-
 aged air conditioners. Data included in this section,
 which begins on page 41, covers 157 individual models
 of window and console room air conditioners being
 marketed this year by 4 manufacturers, and 101 models
 of store type air conditioners being offered by 19
 manufacturers.

—The Editors

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For refrigeration
products nearly
everyone specifies...

ANSUL

Every cylinder of Ansul refrigerants is individually analyzed and carefully inspected to conform with rigid standards of purity and dryness and to insure maximum safety in handling.

For more than a *third of a century*, Ansul has both pioneered and led the field in the production of sulfur dioxide for refrigeration purposes . . .

Ansul methyl chloride has universal recognition in the industry for its unsurpassed quality.

Ansul Refrigerants and Refrigeration Products meet and exceed the most rigid requirements for quality, safety and dependability . . . In fact, there are many instances where Ansul Research has been instrumental in promoting more rigid standards for products sold and used by the entire industry. We are proud to supply you with such top quality refrigeration products at popular prices.

...the symbol of quality
and service for nearly 40 years



ANSUL NON-FOAMING REFRIGERATION OIL

For Better Lubrication
For Longer Compressor Life
NEW, NON-FOAMING ANSUL REFRIGERATION OIL is the finest refrigeration lubricant at any price. Ask us for full information concerning the many advantages of Ansul Non-Foaming Oil.

MANUFACTURERS OF REFRIGERANTS, REFRIGERATION PRODUCTS, INDUSTRIAL CHEMICALS, FINE CHEMICALS, AND DRY CHEMICAL FIRE EXTINGUISHING EQUIPMENT.—DISTRIBUTORS OF NIMETIC "FROON" REFRIGERANTS



ANSUL
Chemical Company

REFRIGERATION DIVISION • MARINETTE, WISCONSIN

Circle No. 4 on Reader Service Card

APRIL, 1953 • COMMERCIAL REFRIGERATION



THERE'S A "STOUT HEART" IN THIS AIR CONDITIONER

The compressor is often called the "heart" of an air conditioner. And when you sell a Chrysler Airtemp "Packaged" Air Conditioner, your customer is getting a compressor that's unsurpassed. Here are some of the reasons why:

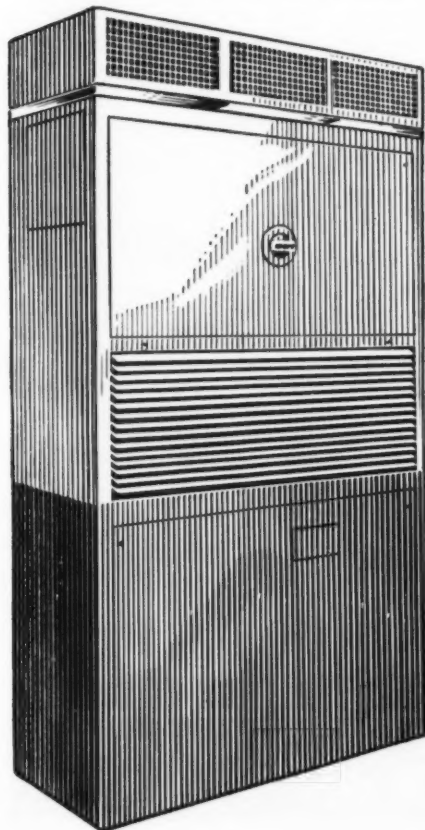
LONG EFFICIENT LIFE

The precise machining and honing of vital moving parts cuts wear way down. Positive pressure lubrication reduces wear, too. The unique suction and discharge valve design gives top, sustained efficiency at high compressor speeds.

QUIET OPERATION

Vibration is reduced to a minimum because the radial compressor design permits perfect balance regardless of the number of cylinders.

Add one more important feature—machined, assembled and tested in a windowless, air conditioned factory, and you can easily see why the word "unsurpassed" in the first paragraph is not an idle claim—it's a fact!



"Packaged" Air Conditioners

Six models from 2 to 15 H.P. capacity. Meets every cooling need.



Chrysler Airtemp

HEATING • AIR CONDITIONING
for HOMES, BUSINESS, INDUSTRY

Airtemp Division, Chrysler Corporation, Dayton 1, Ohio

Airtemp Division, Chrysler Corporation
P.O. Box 1037, Dayton 1, Ohio

CR&AC-4-53

Please send full details on the Chrysler Airtemp Comfort Zone
"Packaged" Air Conditioning proposition.

Name

Address Phone

City Zone State

KENNARD WATER SAVERS

Engineered

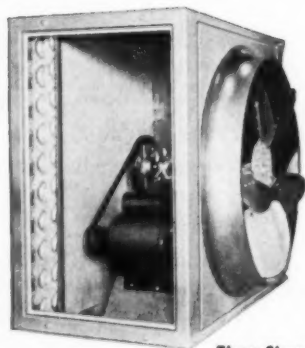
*Announcing
the latest
addition to the*

PACKAGED ECONOMY LINE
RESIDENTIAL—COMMERCIAL—INDUSTRIAL
PACKAGED ECONOMY LINE

AIR COOLED CONDENSER

Kennard planned for quiet operation; incorporating a specially designed air venturi, and a top quality five blade heavy duty fan.

Continuous capacity operation is assured by a generous coil surface and a long lived "V" belt drive.



Three Sizes
2, 3 and 5 Tons

TWO OTHER EFFICIENT

WATER SAVERS

TO SERVE YOUR PARTICULAR NEEDS



Five Sizes
3, 5, 8, 11 and 16 Tons

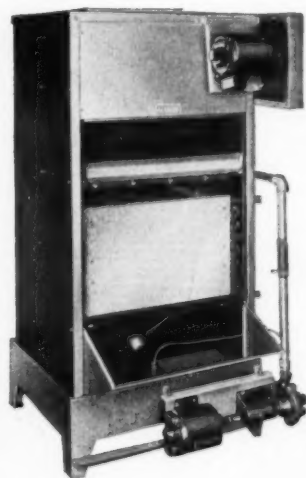
◀ KT—COOLING TOWERS EK—EVAPORATIVE CONDENSERS ▶

Kennard selected centrifugal type fans (Hot-Dip Galvanized) for quiet operation and for their ability to overcome duct resistance on indoor installations, and adverse wind effects on outdoor installations.

Completely galvanized cabinets, rugged enough for outdoor use, and completely coated on interior with an asphalt and asbestos fibre material for further rust-proofing.

Wetted Deck of the Cooling Tower is long lived clear heart of redwood.

The Evaporative Condenser has all prime surface copper coil.



Five Sizes
3, 5, 7½, 10 and 15 Tons

For Air Conditioning Units and larger Water Savers, see the Kennard Representative, or write for special bulletins..

Representatives in all principal cities

**KENNARD CORPORATION • 1827 S. HANLEY ROAD
ST. LOUIS 17, MO., U.S.A.**

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APRIL, 1953 • COMMERCIAL REFRIGERATION

Victor

QUICKFREEZER

LEADERSHIP

MEANS PROFITS FOR *You*

NOW

Victor is telling America about the complete line, the dependable line of VICTOR products in the greatest national advertising campaign in its history.

ALWAYS

Victor is keeping that leadership by looking ahead . . . in bringing out new models, new developments . . . improved products . . . the EXCLUSIVES that have made and will retain VICTOR unchallenged leadership.

FORGING AHEAD

Toward new horizons, ever expanding production facilities to meet the pressing demand of increased orders from both old and new customers.

FOR THE FUTURE

More Sales . . .
More Profitable Sales
in this . . .

America's fastest growing industry. Victor is helping you to build a strong business for the years ahead. Send now for details on the complete VICTOR LINE.

FIRST NAME
IN
QUICKFREEZERS

Victor

UNSURPASSED QUALITY
and Value in FREEZERS
DEHUMIDIFIERS - AIR CONDITIONERS



VICTOR PRODUCTS CORPORATION • HAGERSTOWN, MARYLAND

Circle No. 7 on Reader Service Card
and AIR CONDITIONING • APRIL, 1953



VICTOR PRODUCTS CORPORATION HAGERSTOWN, MARYLAND

Gentlemen: Please send complete details on the Victor products checked below.

- ☐ Upright Quickfreezers
- ☐ Chest-Type Quickfreezers
- ☐ Air Conditioners
- ☐ Dehumidifiers
- ☐ Beverage Coolers
- ☐ Milk Coolers
- ☐ Self-Service Frozen Food Merchandisers
- ☐ Ice Makers
- ☐ Sterilizers
- ☐ Walk in High Temperature, Low Temperature Rooms
- ☐ Reach-in Refrigerators
- ☐ Triple Deck Merchandisers
- ☐ Self-Service Cases
- ☐ Service Cases

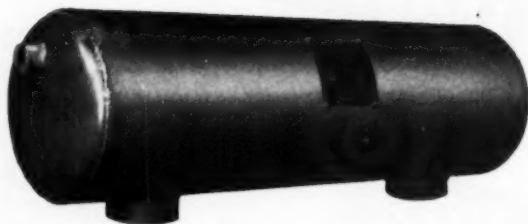
Name _____
Address _____
City _____
State _____

YOU'LL FIND THESE *Acme* PRODUCTS
AT AMERICA'S FOREMOST WHOLESALERS



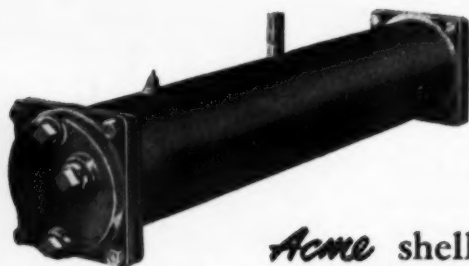
Acme
oil separators

Six models. $\frac{1}{4}$ to 10 h.p. capacity. Maximum separation because of low gas velocity and special filter cartridges.



Acme heat exchangers

Newly designed. Capacities ranging from 3 to 200 tons. Extended bar type fin surface with a gas to liquid side ratio of 13 to 1. Extremely low pressure drop.



Acme shell
and tube condensers

Capacities ranging from $\frac{1}{2}$ to 30 tons. Compact size, extended tube surface, easily cleanable, cast iron water heads "through bolted" to the tube sheet, and sheets welded to the condenser shell. Preferred by better equipment manufacturers the world over.



Acme shell
and coil condensers

Inexpensive, efficient. Capacities from $\frac{1}{2}$ to 5 tons. Compact, sturdily constructed, chemically cleanable. All units have integral fin copper tubing. Acme builds shell and coil condensers for the leading packaged Air Conditioner manufacturers.

Ask your wholesaler about immediate delivery of Acme's new Flow-Cold Cooling Towers.



ACME INDUSTRIES, INC.

JACKSON, MICHIGAN

Mfgs. of a complete line of Air Conditioning and Refrigeration Equipment



Evaporative Condensers
Cooling Towers
Floor-type Unit Coolers



Direct Expansion
(Dry-Ex) and Flooded
Liquid Chillers
Heat Exchangers,
Oil Separators



Shell and Tube, Shell
and Coil Condensers
Receivers, Pipe Coils



Packaged Liquid
Chillers to 225 tons



Flow-Temp Heat
Pumps
Flow-Cold Liquid
Chillers



Remote Room
Conditioner

Continuously serving the refrigeration and air conditioning industry since 1919

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APRIL, 1953 • COMMERCIAL REFRIGERATION

NOW YOU CAN SELL THE MOST ECONOMICAL AND EFFICIENT LOW PRICED AUTOMATIC ICE MAKERS TO EVERY ICE USER... (LARGE OR SMALL!)

SCOTSMAN
*Super
Flakers*



300 lb. Series



500 lb. Series



1000 lb. Series



300 lb. Series



500 lb. Series



1000 lb. Series

SIX COMPLETELY NEW *Super Flakers* FOR 1953

9 BIG SALES ADVANTAGES! These mass-market units open up hundreds of new prospects in every area. They pay for themselves 9 different ways! With extra long dealer discounts you make a real profit on every sale!

FOR EVERY ICE USER! There is a Super Flaker to fit the needs of every flaked ice user. Big volume users can reduce time and labor expenses by multiple unit installations locating one unit at every point where ice is needed.

REDUCE ICE COSTS UP TO 90%! "Super Flaked" ice for as little as 7½¢ to 10¢ per

hundred pounds. These savings alone will pay for a Super Flaker . . . in many cases in less than a year!

LOW PRICED...PROVED DEPENDABLE! Super Flakers have the simplest, most dependable service-free flaking mechanism in the field. They are simple to install . . . no costly plumbing is required!

THE ONLY
PERFECT FLAKED
ICE

Super Flaked ice is hard and dry. Lasts longer! Never freezes or mats together and never gets mushy.

PROFITABLE YEAR-AROUND DEALERSHIPS ARE AVAILABLE

MAIL TODAY! TO: AMERICAN GAS MACHINE COMPANY,
Division of QUEEN STOVE WORKS, INC.
ALBERT LEA, MINNESOTA Dept. C43

Send full facts on the mass-market Super Flakers.

Firm Name _____

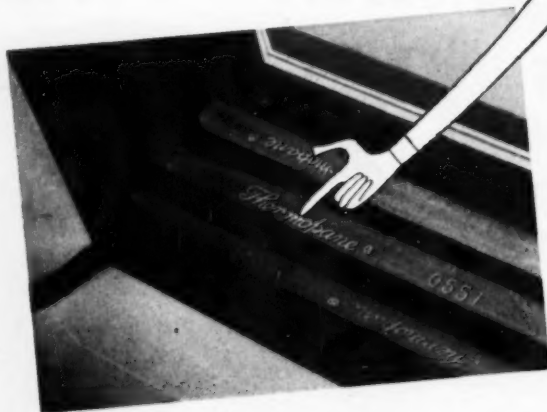
Address _____

City _____ State _____

By _____

AMERICAN GAS MACHINE COMPANY, DIVISION OF QUEEN STOVE WORKS, INC.
ALBERT LEA, MINNESOTA

How to be sure the glass
in a refrigerated case
is sealed from dirt and moisture



Only *Thermopane** insulating glass has the famous *Bondermotic Seal** which prevents moisture and dirt from getting between the panes. This seal is metal-to-glass . . . no organic material that can deteriorate or leak.

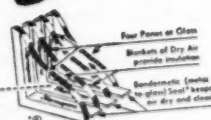
To make sure the next case you buy has a *Thermopane* visual front, look for the *Thermopane* name imprinted on the seal between the panes. You'll find it on all the better refrigerated cases.

LIBBEY-OWENS-FORD GLASS COMPANY
2943 NICHOLAS BUILDING TOLEDO 3, OHIO



Thermopane
INSULATING GLASS

LOOK FOR THE NAME ON THE SEAL BETWEEN THE PANES



A point you'll find worth pointing out!

Your customers know the best cases have *Thermopane** insulating glass. Let them know *your* cases have it. Drop us a line and tell us how many reprints of the ad shown here you'd like to have. Libbey-Owens-Ford Glass Company, 2943 Nicholas Building, Toledo 3, Ohio. *®

*Case Buyers
are getting the point in:*

Quick Frozen Foods... March
Ice Cream Review.... March
Meat Merchandising... April
Food Topics..... June 22

Turn a Bright New Leaf in Your Sales Ledger

NEW PRODUCTS... YEAR 'ROUND PROFITS

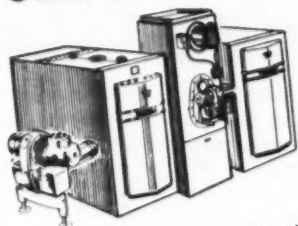
backed by thirty years' sales success
in home comfort!

3 FULL LINES... **1** FAMOUS NAME...
4 SEASON AUTOMATIC HOME COMFORT

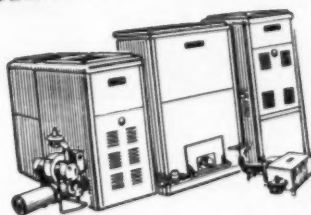
EUREKA

Williams

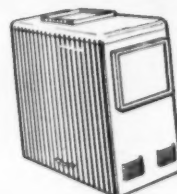
OIL-O-MATIC • GAS-O-MATIC • AIR-O-MATIC



Factory integrated oil heating equipment for every size home, every type of heating system. Boiler - Burner Units, Winter Air Conditioners, Conversion Burners.



Precision engineered, AGA approved gas heating equipment for large and small homes. Winter Air Conditioners, Gravity Furnaces, and Conversion Burners.



Newest member of a famous family. Efficient, economical, low cost Summer Air Conditioning Units for homes large and small. 2 and 3 ton capacities.

Write today for
franchise information

Williams Division
Eureka Williams Corporation
Bloomington, Illinois

Please send complete, detailed information on the Eureka Williams Franchise.

NAME.....
FIRM NAME.....
ADDRESS.....
CITY.....STATE.....CR-4



WILLIAMS OIL-O-MATIC DIVISION
Eureka Williams
CORPORATION

Bloomington, Illinois

Better Products. Better Made... for better living!



OIL-O-MATIC
Home Heating



GAS-O-MATIC
Home Heating



AIR-O-MATIC
Home Air Conditioning



EUREKA
Vacuum Cleaners



DISPOS-O-MATIC
Waste Food Disposer

Circle No. 10 on Reader Service Card
and AIR CONDITIONING • APRIL, 1953

CONTROLLED GASKET THICKNESS ASSURES UNIFORM PISTON VALVE-PLATE CLEARANCE.

CHOICE OF CONNECTIONS PERMITS CONVENIENT INSTALLATION OF CONTROL LINES.

ALL CASTINGS OF FINEST CLOSE GRAINED ELECTRIC FURNACE GREY IRON FROM LEHIGH'S OWN FOUNDRY.

VALVE PLATE PRECISION GROUND AND LAPPED. REEDS ARE FINEST SWEDISH STEEL.

ALL MOVING PARTS CONTROLLED TO .0005 TOLERANCE THROUGHOUT.

ALL OVERSIZE BEARING AREAS—AN ASSURANCE OF LONGER, TROUBLE-FREE WEAR.

HEAVY DUTY HARDENED SHAFT TO CONTROLLED STRAIGHTNESS.

**E-55
HEAVY-DUTY
COMPRESSOR**

LEHIGH HEAVY DUTY UNITS FROM 1/2 HP. THRU 5 HP. ARE EQUIPPED WITH MULTIPLE COMPRESSION RINGS.

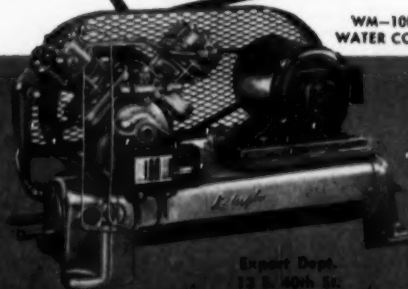
REMOVABLE CYLINDER BLOCK. NO NEED TO REMOVE COMPRESSOR BODY FROM SYSTEM TO SERVICE, REPAIR OR CLEAN CRANKCASE AREA. A REAL TIME & LABOR SAVER!

LARGER CRANK CASE CAPACITY ASSURES AMPLE OIL SUPPLY FOR CONTINUOUS HEAVY DUTY OPERATION.

**... with Lehigh
HEAVY-DUTY means what it says!**



When the job calls for a "HEAVY DUTY" unit you want one that is designed and built for that purpose. Anything else would be "short-changing" the customer. The features illustrated above are in all Lehigh heavy duty units from 1/2 thru 5 H.P. In addition, these units all have extra large, full length condensers and larger, full length, pump-down-capacity receivers. Lehigh heavy duty bases are made of non-breakable malleable iron legs with plate steel in-between. And to make motor changing or belt adjustment easy, Lehigh furnishes adjustable motor rails. Many of these features are exclusive with Lehigh—the result of Lehigh's finer engineering and widely diversified manufacturing facilities. We'll be glad to mail you catalogs—or you can see these units at your Lehigh BLU-COLD jobber.



WM-10F—1 H.P.
WATER COOLED UNIT

**Lehigh BLU-COLD
CONDENSING UNITS and SYSTEMS**

Lehigh Manufacturing Co., Lancaster, Pa.
Division of Lehigh Foundries, Inc.

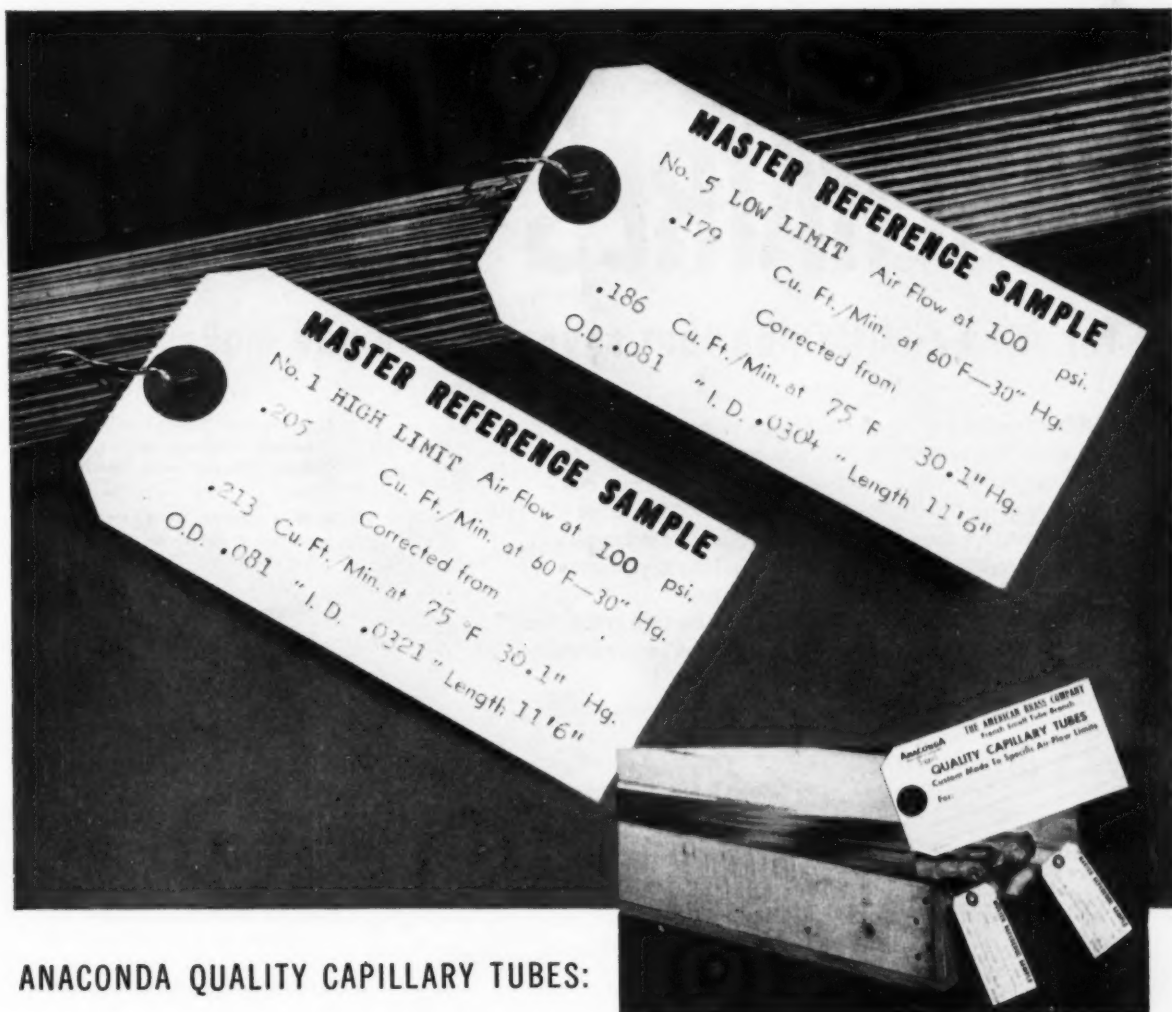
Export Dept.
13 E. 40th St.
New York 16, N. Y.

See your
Lehigh jobber for
PAR
REPLACEMENT PARTS

Manufacturers of Malleable and Grey Iron Castings • Refrigerating Equipment • Air Valves • Automatic Vending Machines

Circle No. 11 on Reader Service Card

APRIL, 1953 • COMMERCIAL REFRIGERATION



ANACONDA QUALITY CAPILLARY TUBES:

Now custom-made to specific air-flow limits!

The true quality of every ANACONDA Capillary Tube is measured solely by its performance within specific mutually-agreed-upon air-flow limits. These limits alone are the base for production. ANACONDA Custom-Made Capillary Tube sizes are not confined to so-called standard inside diameters.

(1) To obtain the performance characteristics you require, simply submit your specifications or samples for the class of tube you need, cut if necessary to odd lengths, and which have the desired limits of air flow.

(2) From these we can readily determine the required correct nominal inside diameter and the overall toler-

ance for any given length to possess a flow capacity *within the range of these samples*. An optimum tube size and length may meet your requirements and show a saving in cost.

(3) As illustrated, your initial shipment will contain Master Reference Sample Tubes which have the maximum and minimum flow capacities agreed upon.

(4) Duplicate Master Reference Samples retained in our files are the means for assuring that every tube in all subsequent shipments will have air flow within the agreed-upon limits.

ANACONDA Custom-Made Quality Capillary Tubes are made of both copper and aluminum in nominal inside

diameters from .005 in. to .090 in. For detailed information about these finely engineered tubes, write to The French Small Tube Branch, The American Brass Company, Waterbury 20, Connecticut. In Canada: Anaconda American Brass Ltd., New Toronto, Ontario.

5-574

custom-made for precision

ANACONDA
Quality Capillary Tubes

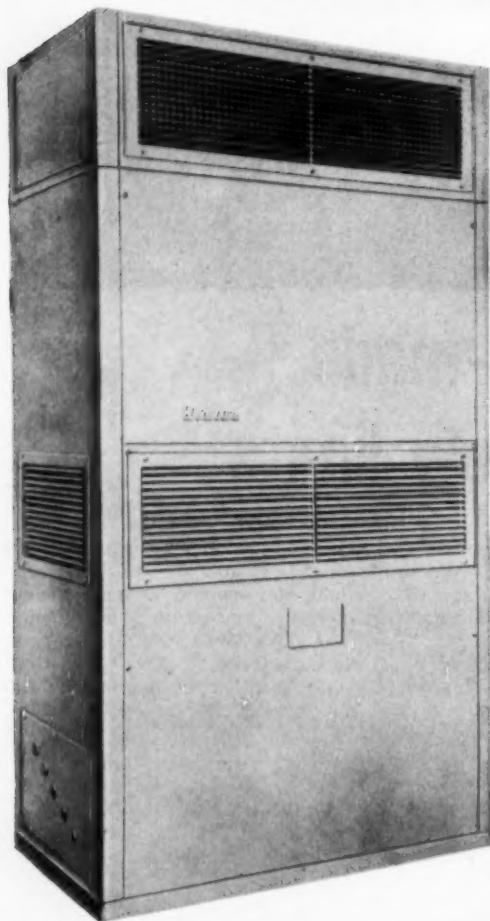
11 Reasons Why BAKERAIRE'S THE "BUY"!

for Air Conditioning that saves dollars and makes sense!

Air conditioning doesn't have to be expensive any longer. The new Bakeraire has been engineered to deliver more cooling per horsepower at lower cost, achieved by Baker design developments. It's more efficient . . . operating time is reduced. It costs less to install . . . with simplified connections. It costs less to operate . . . with a new water-saving condenser.

No matter how you look at it . . . Bakeraire is the "buy" for 1953. Housed in a beautiful new "Kiel" gray finished cabinet . . . 3, 5, 7½ and 10 ton capacities.

Bakeraire Corporation, South Windham, Maine.



GET ALL THE FACTS

Call your local Baker Distributor or write today to Bakeraire Corporation, South Windham, Maine, Dept. HP

"Intentionally Better Since 1905"

Baker

**AIR CONDITIONING
and REFRIGERATION**

1. Exclusive "Sphericcoil" over-capacity condenser exchanges heat faster with less water consumption.

2. High capacity fans provide large volume, draft-free air flow, quietly and efficiently.

3. 5-row cooling coils, staggered to give maximum air surface exposure, unobstructed air flow.

4. Humidity control, reduces air moisture content on muggy days for greater cooling comfort.

5. Permanent air filters, crimped wire mesh, easily removed for quick cleaning with steam or hot water.

6. Fibreglas insulation, sound absorbent, waterproof, rotproof, does not hold odors, prevents sweating.

7. Famous Baker Freon compressor,

8. Reversible plenum, adjustable for front or rear 4-way air discharge, up and down, left and right.

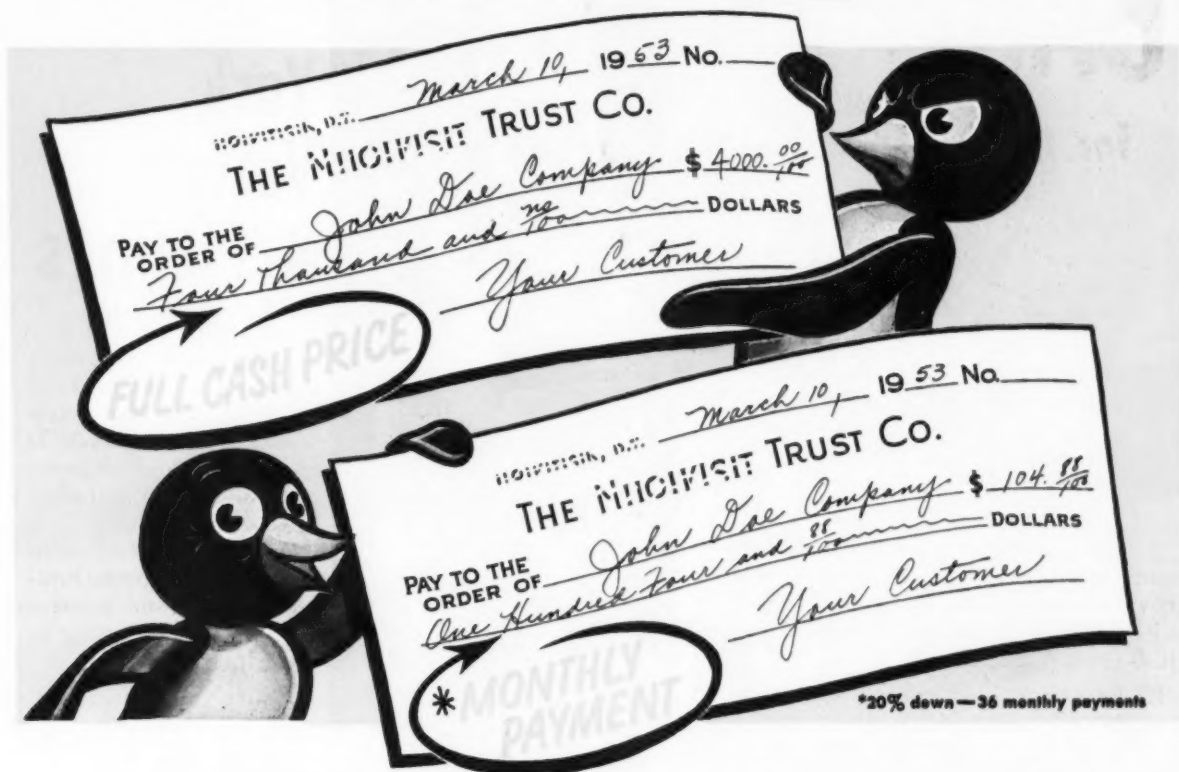
9. Easy connecting, with new 45° plumbing "tree" cuts connecting time 50% to city water or water tower.

10. Overload protection, motor starter with automatic overload protection, high-low pressure control.

11. Coil spring mounting "cradles" compressor unit to absorb vibration and assure quiet operation.

IF YOU WERE *Your Prospect*

which check would **YOU** mail?

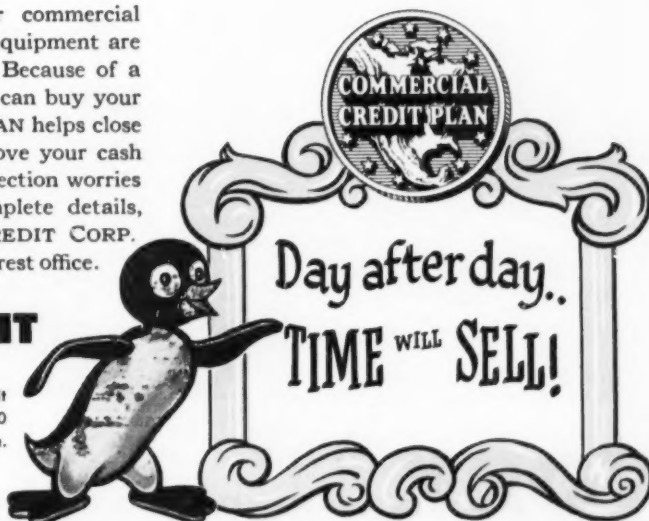


Feature Time Payments to close more sales
with the *COMMERCIAL CREDIT PLAN*

MORE AND MORE prospects for commercial refrigerating and air conditioning equipment are becoming, of necessity, **TIME BUYERS**. Because of a tight cash position it's the only way many can buy your equipment. The **COMMERCIAL CREDIT PLAN** helps close sales . . . lower accounts receivable, improve your cash position. And you turn your credit and collection worries over to **COMMERCIAL CREDIT**. For complete details, facts and figures, write **COMMERCIAL CREDIT CORP.** 14 Light Street, Baltimore 2, Md., or our nearest office.

COMMERCIAL CREDIT CORPORATION

A service offered through subsidiaries of Commercial Credit Company, Baltimore... Capital and Surplus over \$125,000,000
...offices in principal cities of the United States and Canada.



Circle No. 14 on Reader Service Card

THE YORK
AUTHORIZED JOBBER

**knows
the score**

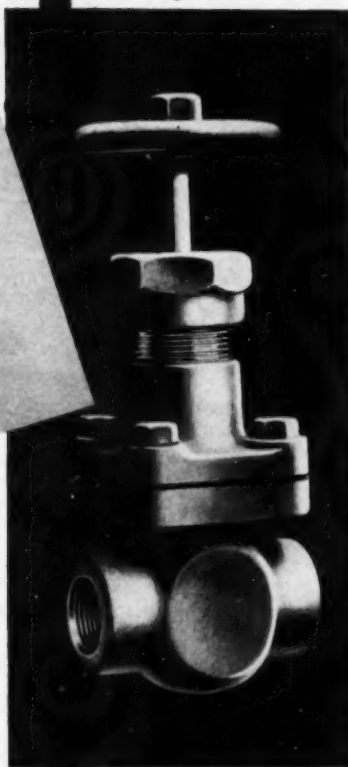
He knows service men hold their accounts only if the work stands up! He knows it's penny-wise and pound-foolish to jeopardize your business by promoting "just-as-good" merchandise.

He knows it's good business to feature genuine York Accessories & Supplies—the standard of value and quality by which all other refrigeration equipment is measured.

Rely on your Authorized York Jobber for all your needs. It will pay you always!

More than 500,000
Condensing Units and
Compressors Rely on York
Accessories & Supplies for
Dependable Performance

TRIPLE INSPECTED-
DOUBLE TESTED



York Valves & Fittings

York knows that ordinary metals or design just can't stand up to the rigors of modern refrigeration systems. So York makes its own metal alloys for greater valve strength, and offers these special features:

Full-feed diameter to keep friction down. Special Sealing Ring to assure positive seal. Back Seat Sealing to eliminate leakage.

TRIPLE INSPECTED
—DOUBLE TESTED

Each and every York valve is triple inspected and double tested at 300 lbs. per square inch pressure under water before it leaves the factory:

1. For overall tightness.
 2. For tightness across seat.
- They just can't leak!*

IT ALWAYS PAYS TO USE YORK ACCESSORIES & SUPPLIES
from your authorized York jobber

Air Filters • Automatic Controls • Charging Connections • Coils and Piping
Cold Storage Doors • Freon Refrigerants • Gas Masks • Hand Oil Pumps
Ice Cans • Motors and Pumps • Oil • Oil Traps • Purge Devices • Receivers
Renewal Parts • Suction Traps • System Cleaners • Valves and Fittings

Mr. Wholesaler—Investigate the advantages of the York Line

YORK

REFRIGERATION AND AIR CONDITIONING
HEADQUARTERS FOR MECHANICAL COOLING SINCE 1885





L. E. JOSLIN, Krey Packing Co., finds

FOAMGLAS

the ideal insulation
for freezer and cooler rooms

"The walls, floors and ceilings of our freezer and cooler rooms, in constant operation at 10°F. and 32°F., were insulated with FOAMGLAS over two years ago," reports L. E. Joslin, Assistant Mechanical Superintendent, Krey Packing Company, St. Louis, Missouri and Belleville, Illinois. "Since that time, FOAMGLAS has proved to be the ideal insulation for our refrigerated spaces because of its long, trouble-free life."

Experience probably has taught you, too, that ordinary insulations readily absorb moisture, impairing thermal efficiency and causing deterioration. The perfect answer to this problem is FOAMGLAS, the *stay-dry* insulation . . . the unique, rigid structure of sealed glass cells which are impervious to moisture or vapor and unaffected by fire or vermin . . . that's why you, like Krey Packing Company, can count on FOAMGLAS for long, constant efficiency.

PITTSBURGH CORNING CORPORATION

Pittsburgh 22, Pa.

Insulation Contractor: Gordon Insulation Co., East St. Louis, Illinois



Pittsburgh Corning Corp., Dept. I-43
Pittsburgh 22, Pa.

Please send me free sample and booklets on use of FOAMGLAS for:

- ☐ Refrigerated Structures
- ☐ Piping and Equipment
- ☐ Normal Temperature Buildings
- ☐ Send engineer to help with specific problem.
- ☐ Advise nearest source of supply.

NAME _____ Title _____
COMPANY _____
ADDRESS _____
CITY _____ Zone _____ State _____



***GAIN* High starting torque...**
***LOSE* Maintenance Problems**

WITH THESE NEW CAPACITOR MOTORS

Starting's no problem! Even on such heavy, single-phase jobs as refrigeration compressors, these new CAP motors come through with ample breakaway torque . . . require minimum maintenance!

CAP motors have simpler design! Gone are many parts which wear, break and corrode! Retained is all the power-packed stamina you demand! No brushes to replace or adjust. No intricate winding of rotor to cause electrical failure . . . no commutator to clean, turn down or undercut. Instead, the CAP includes such trouble-free features as:

- Pre-lubricated, factory-sealed bearings—assure proper and permanent lubrication; grease sealed in—dirt sealed out.
- All-steel construction—provides high shock resistance; creates saving in weight and size of motor.
- Die-cast rotors—have no windings or brushes to cause trouble . . . are practically indestructible.



Learn all the many other advantages of these rugged motors. Ask your Westinghouse representative for a copy or write for the free booklet, B-5441, Westinghouse Electric Corporation, P.O. Box 868, Pittsburgh 30, Pa. J-21674-A

YOU CAN BE **SURE**...IF IT'S
Westinghouse



Circle No. 17 on Reader Service Card

APRIL, 1953 • COMMERCIAL REFRIGERATION

You sell more because you offer more with the...



Tecumseh

Complete line of JOBBER HERMETICS

Now, for the first time, the entire line of Tecumseh hermetics for domestic and commercial applications from $\frac{1}{8}$ H.P. to $1\frac{1}{2}$ H.P. is available to the jobber trade. With eleven million Tecumseh compressors in the field today, a complete line of replacement compressors spells added sales for you.

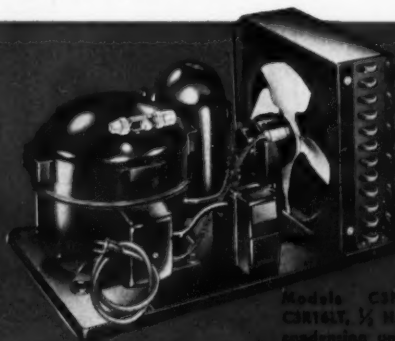
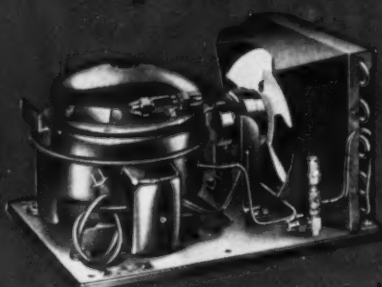
The franchised Tecumseh jobber will now stock and sell this line of exactly engineered compressors and units for all hermetic applications. These are the same compressors and units specified as original equipment by most manufacturers of domestic and commercial cabinets.

Note too, that the full line now in stock at your local jobber includes a wide range of open-type compressors and units up to 15 H.P. See the Tecumseh line first for all your refrigeration requirements and be sure you have the right unit for every replacement job.



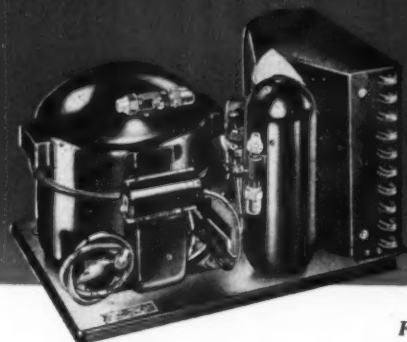
Model 2282, $\frac{1}{8}$ H.P. fan cooled condensing unit for domestic refrigeration applications.

Models 2281 and 2284, $\frac{1}{4}$ and $\frac{1}{2}$ H.P. fan cooled condensing units for domestic refrigerators and small freezers.

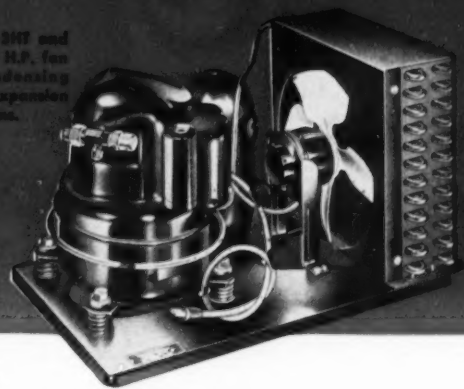


Models C2014NT and C2014LT, $\frac{1}{2}$ H.P. fan cooled condensing unit for use as expansion valve system.

Models C2013NT and C2014LT, $\frac{1}{2}$ H.P. fan cooled condensing unit for expansion valve systems.



Models C2014NT and C2014LT, $\frac{1}{2}$ H.P. fan cooled condensing unit for use as expansion valve system.



For full information write:



TECUMSEH PRODUCTS

TECUMSEH, MICH.

Company

EXPORT DEPT.: 2111 WOODWARD AVE., DETROIT, MICH.

★ The world's largest producer of condensing units for the refrigeration industry. ★

Get off to a Fresh Start with . . .

Redmond MICROMOTORS

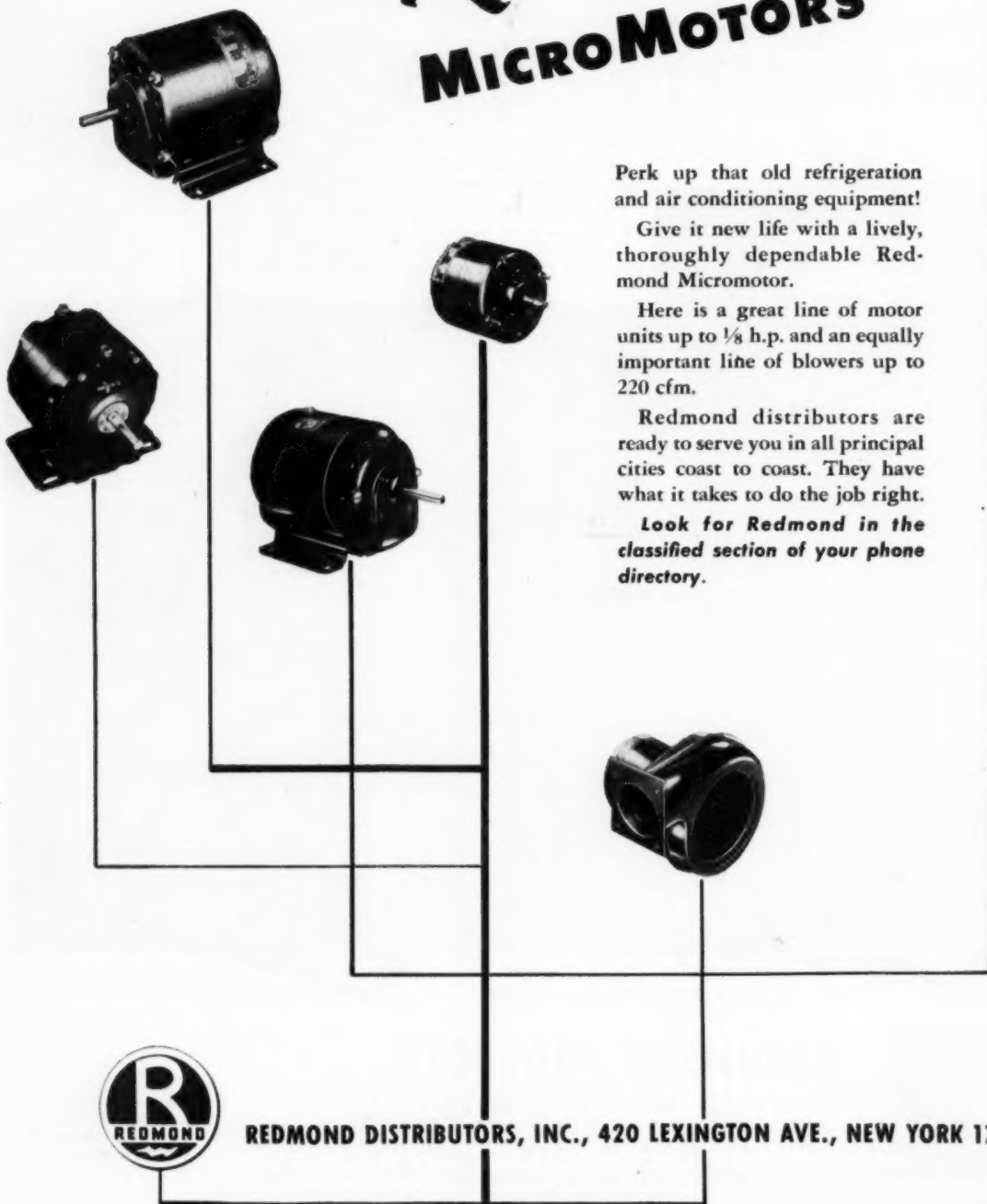
Perk up that old refrigeration and air conditioning equipment!

Give it new life with a lively, thoroughly dependable Redmond Micromotor.

Here is a great line of motor units up to $\frac{1}{8}$ h.p. and an equally important line of blowers up to 220 cfm.

Redmond distributors are ready to serve you in all principal cities coast to coast. They have what it takes to do the job right.

Look for Redmond in the classified section of your phone directory.



REDMOND DISTRIBUTORS, INC., 420 LEXINGTON AVE., NEW YORK 17, N. Y.

Circle No. 19 on Reader Service Card

"Look at the space saved!"



Outline shows size of old style fitting compared with the new Close-Ruff Elbow.

- with this new
**NIBCO
CLOSE-RUFF
ELBOW**



- and it's got everything I've wanted in an elbow!

- ★ **SHORT RADIUS** — made to fit tight spots.
- ★ **STRONG AND RUGGED** — with compact design.
- ★ **PURE COPPER** — matches with copper tube.
- ★ **FASTER INSTALLATION** — heats up quickly.
- ★ **ECONOMY WEIGHT** — saves copper and space.



NORTHERN INDIANA BRASS CO.
414 PLUM STREET, ELKHART, INDIANA

TRY IT YOURSELF, FREE! We'll be glad to mail you, without cost, a new Nibco Close-Ruff Elbow so you can check for yourself how it speeds the job and protects your profit. Send coupon for free sample.

NORTHERN INDIANA BRASS COMPANY
414 Plum Street, Elkhart, Indiana

I'd like to test the New NIBCO Close-Ruff Elbow. Rush my free sample.

Name _____
Address _____
City _____ State _____

Circle No. 29 on Reader Service Card

SMALLER UNITS and PUMPS



the New emphasis in Air Conditioning

Everywhere the emphasis is on compact efficiency for air conditioning units and pumps. Take a peek at the plans on the tables of Design Engineers working on new models. You'll find that in drawing after drawing, units and pumps are getting smaller and more compact than ever before!

The I-R Motorpump brings future pump design to you now. And it's now, today, that you can get all the advantages of future design benefits! Here are a few of these advantages:

- **SIZE FOR SIZE**—the I-R Motorpump will outperform any pump now available for air conditioning service.
- **SPACE SAVING**—The compactness of the I-R Motorpump will make you wonder why it couldn't have been designed years ago!
- **EASY INSTALLATION**—Operates equally well in any position. Easily bolted to floor, wall, or equipment. No special foundations needed.
- **LONG, TROUBLE-FREE SERVICE**—Put in these rugged pumps and forget them!
- **LOW FIRST COST**—Use a smaller, more efficient I-R Motorpump to do the job of a larger regular pump.

For complete details write for Bulletin 7177 or call the nearest Ingersoll-Rand branch office.

AVAILABLE NOW
FOR
RUSH DELIVERY

Ingersoll-Rand **MOTORPUMPS** for

Improved Air Conditioning Operation

Ingersoll-Rand

11 BROADWAY, NEW YORK 4, N. Y.

800-9

Circle No. 21 on Reader Service Card

APRIL, 1953 • COMMERCIAL REFRIGERATION

**1953
DUST-STOP[®]**
air filter
promotion

Here's how to
MAKE MORE MONEY
on Filters!

New profit opportunities
in air conditioning with the
best-known name in air filters.

You can make a mighty nice *extra* profit, all season long, by pushing DUST-STOP[®] Filters on your regular air conditioning sales and service contacts. This new promotion bulletin tells you how to cash in—and how to get your free Fiberglas[®] selling aids.

Mail the coupon today. Get set now to clinch a bigger share of replacement filter sales. And stock the filters millions know—Fiberglas DUST-STOP, advertised nationally to help you sell.

*FIBERGLAS and DUST-STOP are trade-marks (Reg. U.S. Pat. Off.) of Owens-Corning Fiberglas Corporation for products made of or with fibers of glass.



DUST-STOP[®]
AIR FILTERS

Send for your copy TODAY!

Owens-Corning Fiberglas Corporation
Advertising Dept., Toledo 1, Ohio

Rush promotion bulletin D53-8 to: (please print or type)

Company Name _____

Attention of _____

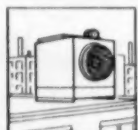
Address _____

City _____ Zone _____ State _____

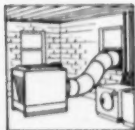


*from
design
to delivery*

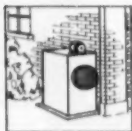
1953 Marley Aquatowers* *lead all the way*



ON THE ROOF



INDOORS



ON THE GROUND

Write for Bulletin AQ-53A
and name of your nearest
Marley Sales Engineer.



Right down the line—in design, construction, performance, availability—Marley Aquatowers continue to be the best buy for water cooling in the 2- to 60-ton range, as they have been for more than a decade.

To the carefully engineered design that has made Aquatowers the most popular of all cooling units, new important refinements have been added. Your Marley representative will gladly explain these improvements that assure even greater acceptance for Aquatowers.

Structural ruggedness is characteristic of the line. All are of heavy gauge steel, welded into perfectly integrated units. Interiors are completely protected by a heavy coat of Marmastic compound.

These well-designed, well-built towers are conservatively rated. They will deliver specified performance . . . are guaranteed to do it. This means that you can select the correct unit for each job. You don't over-buy or overload when you install Aquatowers.

And when you need them, Aquatowers will be available. Production schedules and plant facilities have been expanded to meet the most optimistic forecasts for the air conditioning industry's greatest year. Aquatowers are now stocked in 30 cities for your convenience.

*Reg. trade-mark

The Marley Company

KANSAS CITY, MISSOURI

Circle No. 23 on Reader Service Card

APRIL, 1953 • COMMERCIAL REFRIGERATION

why take a trimming....

KOLD-HOLD truck refrigeration WILL PAY FOR ITSELF!

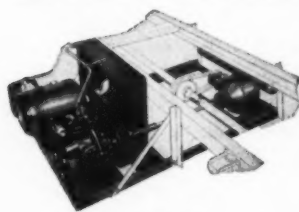
How would you like to finish an entire season without loss from spoilage? Every time you incur a spoilage loss you are taking a trimming . . . you're scraping profits into the garbage pail.

Actually you're paying for Kold-Hold truck refrigeration now . . . why not enjoy its advantages? You not only save spoilage losses, but your trucks can make longer hauls. They can carry a full day's load to save time and manhours and make trips more profitable. Full flavor is retained so that you assure complete customer satisfaction. These benefits mean that dependable Kold-Hold truck refrigeration will pay for itself.

For example, one user reports: "Kold-Hold has saved us \$10,500 in less than six months."

When the weather is stacked against you, don't gamble. Don't invest in half satisfaction. Be sure you specify Kold-Hold dependable truck refrigeration that maintains pre-determined low temperatures and keeps truck bodies clean, dry and sweet smelling even on the hottest days.

KOLD-HOLD can answer any refrigeration problem!



KOLD-TRUX

Which do you prefer . . . Mobile or Hold-Over truck refrigeration? Kold-Hold can give you either or a combination of both.

When your weather worries start, pick out the routes with the biggest refrigeration problems and call on Kold-Hold to give you a satisfactory solution. They will give you the right combination for your needs from such highsides as the Kold-Trux Mobile Unit, a mounted compressor, or make-and-break assemblies, coupled to such lowsides as Kold-Hold Hold-Over Plates, Thin Plates, Serpentine Quick-Action Plates, or Blowers.

Why not give us the details of your problems and let our engineers find the most efficient solution for you. Write today for details.



HOLD-OVER PLATES



Tell us your truck refrigeration problems and send now for complete data and literature.

KOLD-HOLD

protects every stop of the way

KOLD-HOLD MANUFACTURING CO., 303 E. Hurst St., Lansing, Mich.

Circle No. 24 on Reader Service Card

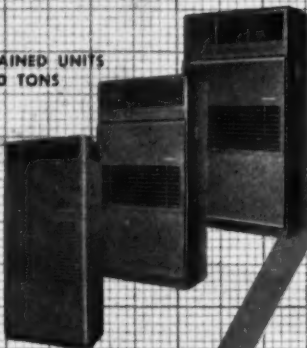
Quality-Engineered by **TYPHOON**

**DEPENDABLE EQUIPMENT FOR YOUR
AIR CONDITIONING NEEDS**



SELF-CONTAINED
REMOTE UNITS
15 AND 20 TONS

SELF-CONTAINED UNITS
1 1/2 TO 10 TONS



EVAPORATIVE
CONDENSERS
3 TO 20 TONS



RESIDENTIAL SUMMER-WINTER UNITS
2, 3, 5 TONS



PROP-X-TEMP
HEAT PUMPS
2 TO 20 TONS

Whether the job calls for a single packaged air conditioning unit or a central plant ... a residential year-round unit or a heat pump—you can count on Typhoon equipment to supply your needs. And Typhoon's quality engineering—backed by over 40 years of experience—is your guarantee of trouble-free performance.

Satisfied Typhoon users include famous companies like RCA, Grand Union Stores and Whelan Drug Stores. They've found Typhoon equipment tops in economical operation ... tops in cooling efficiency. You will, too.

Also ...
Heating and Cooling Coils
Air Handling Units
Cooling Sections to
Supplement Furnaces
Water Chillers
Multi-Package Systems
Steam or Water Boilers
Window Units 1/4, 1/2, 3/4
and 1 HP

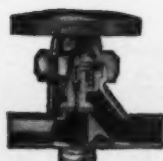
Write for Detailed Information

TYPHOON AIR CONDITIONING CO., INC.

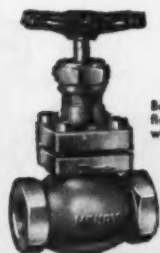
794 Union Street, Brooklyn 15, N. Y.

Specialists in Air Conditioning Since 1909

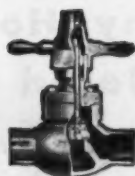




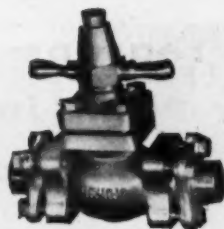
PACKLESS VALVE
With balanced-action



AMMONIA VALVE
Bolted Bonnet — screw or flanged connections. Also with screwed bonnet, sizes 1" and under



WING CAP VALVE
Non-ferrous



WING CAP VALVE
Semi-steel—with companion flanges and adapters



you pay —

no premium for..

the extra advantages found in

Henry products

or for the extra satisfaction that follows their use



STRAINER
Angle type with patented distortion-proof flange

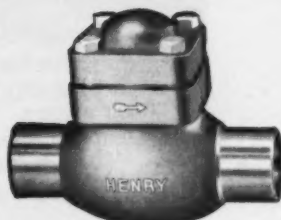


Y-STRAINER
Brass plated. Welded steel construction with forged brass connections. Size $\frac{1}{4}$ " O. D. S. through $4\frac{1}{2}$ " O. D. S.

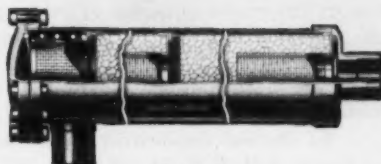


BALANCED-ACTION PACKLESS LIQUID LEVEL GAUGES

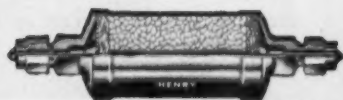
Valves are backseating—diaphragms may be inspected or replaced without loss of liquid. Conforms with all safety code requirements.



CHECK VALVE
Piston Type For Freon. Sizes $\frac{3}{8}$ " through $4\frac{1}{2}$ " O. D. S.



DRIER
Cartridge type with dispersion tube



EXTRA CAPACITY DRIER
2 cubic inches more than established practice.

... Write for these catalogs

No. 100 Packless and packed valves, strainers, driers, ammonia valves, check valves, relief valves, three-way valves, scale traps, liquid gauge sets, flange unions, nut unions and accessories for air conditioning and refrigeration and industrial uses.

No. 70 Drop forged and cold rolled steel fittings.



DIAPHRAGM RELIEF VALVE

Large capacity—fast positive relief and reseating action. Very small differential between opening and closing pressures.



STRAIGHT-THROUGH RELIEF VALVE

Large capacity—All Brass Construction. Sizes $\frac{1}{4}$ " M.P.T. through 1" F.P.T.

Stocked and Sold by Leading Jobbers

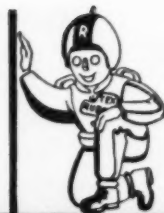
VALVES • DRIERS • STRAINERS • CONTROL DEVICES and ACCESSORIES FOR REFRIGERATION and AIR CONDITIONING and INDUSTRIAL APPLICATIONS

HENRY VALVE COMPANY

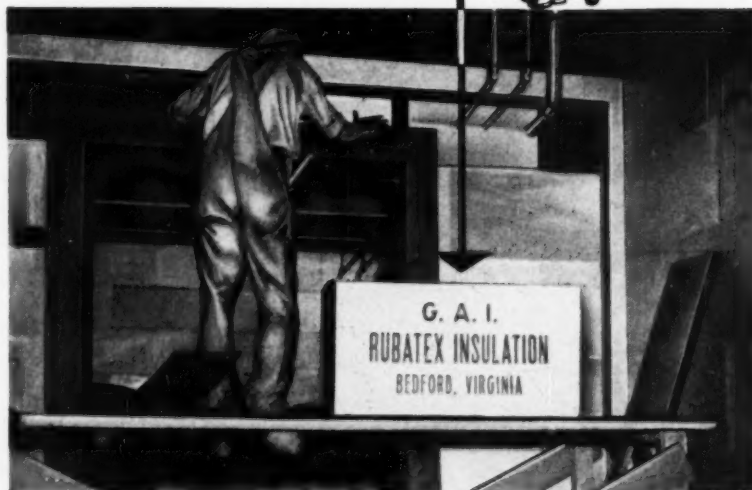
MELROSE PARK, ILLINOIS Chicago Suburb

Cable: HENVACO • MELROSE PARK, ILLINOIS

3 big reasons why Hormel Freezer Plant insulated with Rubatex Insulation Hardboard



1. Reduces Operating Costs
2. Prevents Condensation Damage to Machinery and Food
3. Assures Low Temperature Control



RUBATEX INSULATION HARDBOARD FOR BETTER REFRIGERATING PERFORMANCE!

In your design calculations for new freezer plants, cold storage rooms, military low temperature application, or converted portions of existing facilities to sharp freezer space — check these outstanding advantages of RUBATEX INSULATION HARDBOARD:

Physical Advantages

Light weight — 4½ lbs. per cubic foot. Excellent structural strength. Compressive strength — 60 lbs. per square inch. Rot, vermin and termite proof. Does not crumble or settle. Easy to handle. Standard board sizes — 17½" x 35½". Thicknesses 1", 1½", 2", 3".

Zero Moisture Pick-Up Advantages

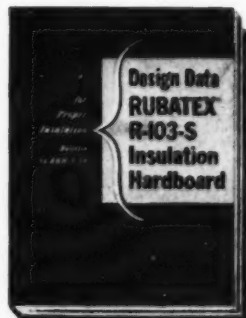
Unique closed cellular structure shuts out moisture — resists deterioration — prevents condensation damage to machinery and food.

Low Heat Conductivity Advantages

Its thermal conductivity coefficient "k" is only 0.21 B. t. u. per hour, per degree Fahrenheit temperature difference, per square foot of area, per inch thickness. This low "k" factor remains constant.

Power Savings Advantages

Independent laboratory tests of Rubatex Insulation Hardboard vs other insulating material showed that Rubatex required only 53% as much power to maintain the required low temperature.



Send for Design Data Bulletin RBH-1-50, Dept. CR-4, Great American Industries, Inc., Rubatex Division, Bedford, Virginia.

Add these advantages together and you have RUBATEX INSULATION HARDBOARD . . . an insulating material that pays for itself in money and BETTER REFRIGERATING PERFORMANCE!



Circle No. 27 on Reader Service Card

No. 6 of a Series of 12 Advertisements

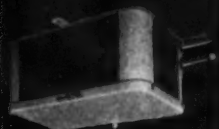
Good Men to Know!



BERNARD M. PACKTOR
Factory Representative New England Territory
serving you through these
reputable wholesalers



JAMES REES
Standard Supply Co., Inc.
South Norwalk, Connecticut



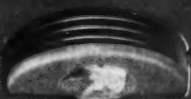
HARRY H. COBE
Cobe & Foster, Inc.
Manchester, New Hampshire



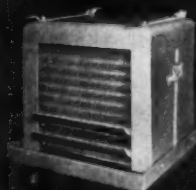
E. F. MORLEY
Resco Inc.
New Haven, Connecticut



MEVIN W. DAY
The H. W. Day Supply Co.
Hartford, Connecticut

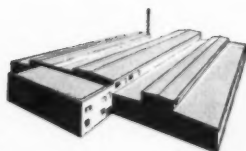


LOUIS FARESE
Parsons Bros. Inc.
Bridgeport, Connecticut



CONSULT YOUR McQUAY WHOLESALE FOR EVERY REFRIGERATION NEED

McQuay is proud of its complete line of *proved and preferred* refrigeration equipment and of the men who represent the company to you. There is a McQuay wholesaler in your territory, qualified by long experience and backed by the entire McQuay sales and engineering organization, who can give you the right answer to your specific problem — whether it's selling help, technical advice or quick action you want. Consult your McQuay wholesaler or write McQuay, Inc., 1643 Broadway N. E., Minneapolis 13, Minn.



Plant 1—1600 Broadway N.E.
Minneapolis 13, Minn.



Plant 2—1729 Broadway N.E.
Minneapolis 13, Minn.



Plant 3—4th and Park Ave.
Faribault, Minn.

McQuay INC.



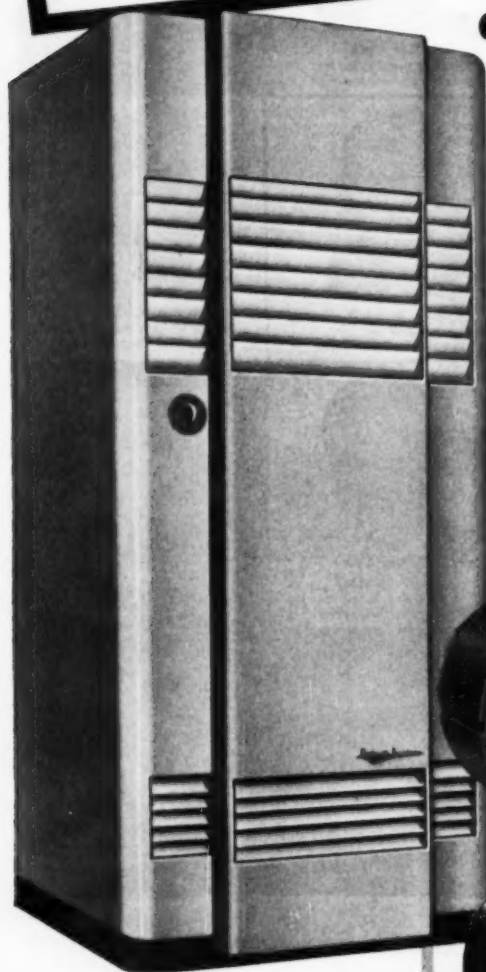
REFRIGERATION
HEATING
AIR CONDITIONING

MANUFACTURERS OF HEAT TRANSFER EQUIPMENT SINCE 1923

Circle No. 28 on Reader Service Card

and AIR CONDITIONING • APRIL, 1953

Wagner
ELECTRIC MOTORS
...the choice of leaders
in industry



This compact, self-contained air conditioning unit, that may be located in or out of the air conditioned space, is typical of many such units powered by Wagner Hermetic Motors.

Consult a Wagner engineer on your motor applications. Call the nearest of our 32 branch offices, or write us for full information.

**Insure your sealed units
against motor failure...**

use

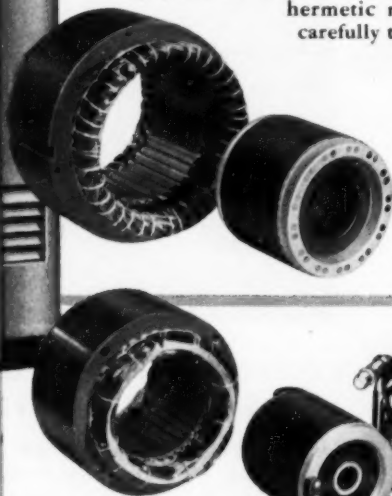
Wagner

Hermetic Motors

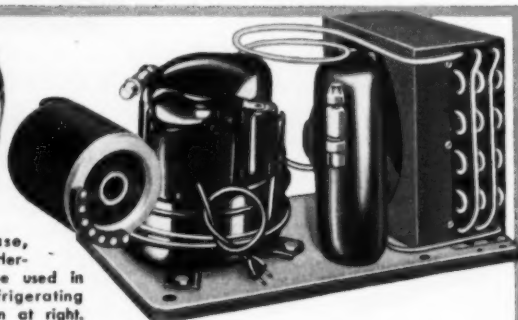
Hermetically sealed compressors for air conditioners and refrigerating equipment are rapidly gaining preference because of the great convenience they offer to users of the equipment—there is nothing to oil or adjust, no belts to wear out.

Wagner can provide hermetic motors to power *your* equipment. Wagner hermetic motors are available for both polyphase and single-phase applications. These hermetic motors, like all Wagner Motors, are backed by more than sixty years of motor building experience. Each Wagner hermetic motor is precision-built and carefully tested.

Wagner Hermetic Motor of the type used in self-contained air conditioners. This 7½ horsepower polyphase squirrel-cage motor is especially designed for use in sealed refrigeration units.



This ¾ hp single-phase, capacitor-start Wagner Hermetic Motor is the type used in hermetically-sealed refrigerating units like the one shown at right.



Wagner
Electric Corporation
EST. 1891

WAGNER ELECTRIC CORPORATION

6442 Plymouth Ave., St. Louis 14, Mo., U.S.A.

ELECTRIC MOTORS • TRANSFORMERS • INDUSTRIAL BRAKES
AUTOMOTIVE BRAKE SYSTEMS — AIR AND HYDRAULIC

BRANCHES IN 32 PRINCIPAL CITIES

A53-S

Circle No. 31 on Reader Service Card

APRIL, 1953 • COMMERCIAL REFRIGERATION

8 tested, money-making helps free from your Gates jobber



Boost volume and profits with these practical aids
for refrigeration servicemen

Your Gates Jobber has on hand — or will quickly get for you—any or all of the valuable sales helps shown here at no cost to you.

These fully-tested aids form a complete, practical business-building program for refrigeration servicemen. They have been successfully used by servicemen from coast to coast to gain new customers, boost sales volume, increase profits. And they are *yours* with no strings attached.

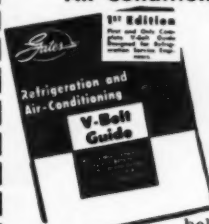
Check NOW — while you think of it—the items you want and take this ad to your Gates Jobber. He'll gladly fill your request. The Gates Rubber Co., Denver, U.S.A. *World's Largest Maker of V-Belts.*



The mark of specialized research.

Check items you want and present to your Gates Jobber

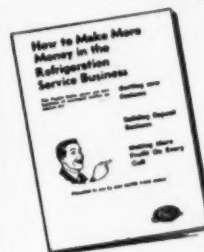
1 Refrigeration and Air Conditioning V-Belt Guide:



Most complete guide ever published in the industry. Contains V-Belt specifications for the large, extra-profitable commercial installations, as well as for home appliances.

106 pages — all the belt and pulley information you need to service nearly every domestic and commercial refrigeration and air-conditioning unit known.

2 How to Make More Money in the Refrigeration Service Business:

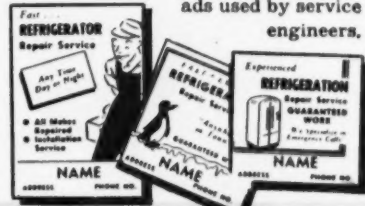


Tells how to get new business... build repeat business... make more profit on every call. A wealth of successful sales promotion ideas and methods.

3 Printed Sales Pieces for use as direct-mail advertising, bill inserts or hang-up cards. Space for your name.



4 Newspaper Mats of effective ads used by service engineers.

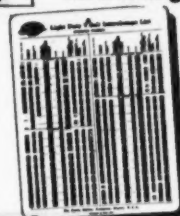


5 Service Record Stickers

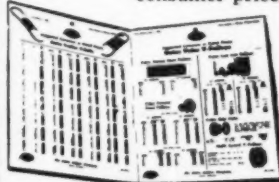


to put on equipment you've serviced. A reminder to customers to call you again for service. Space for rubber-stamping your name.

6 Interchange Card tells correct Gates Belt to use when replacing belts of other manufacturers. Handy and grease-resistant.



7 Price Card... lists suggested consumer prices for Gates V-Belts and V-Pulleys. Hang in shop or truck.



8 Customer Service File Cards



make it easy to keep a permanent record of every service job.

L013

Specially Engineered

Gates V-Belts

for Refrigeration and Air-Conditioning Equipment

Here are the Symbols SPORLAN has made Famous!



G VALVE

C and Z

SELECTIVE CHARGES

No other thermostatic expansion valve designed for commercial refrigeration offers the Peak Performance of Sporlan's Famous G Valve with Selective C and Z Charges.

INTRODUCED by Sporlan to the industry in 1934, this combination has steadily forged ahead in popularity until today refrigeration men, both young and old, have made it their No. 1 choice... They know best what Peak Performance really means!

← **"C" CHARGE** for
suction temperatures above zero.

← **"Z" CHARGE** for
suction temperatures below zero.

plus **"X" CHARGE** for
extremely low temperatures.

Buy a Sporlan "G" Valve

with Selective Charges from your Wholesaler today!... and be sure to ask him for the Sporlan 52-C Catalog. With it you can select the proper Thermostatic Expansion Valve, Solenoid Valve and Catch-All to give that Sporlan "Right-Down-the-Line" Peak Performance!

SPORLAN VALVE COMPANY

7525 SUSSEX AVE. ST. LOUIS 17, MO.

EXPORT DEPARTMENT

89 BROAD STREET NEW YORK 4, N. Y.

Circle No. 35 on Reader Service Card

APRIL, 1953 • COMMERCIAL REFRIGERATION

Air Conditioned BY *Clime-matic**

*FINEST IN AIR-CONDITIONING

Air conditioning volume is about to break out in a blaze of sales. It's been a long time building and, coincidentally, so have we. From its very inception the United Clime-matic Air Conditioning Units have been engineered, designed and developed by air conditioning people with an awareness of the needs of the industry . . .

that's why Clime-matics cool faster and deliver more per horsepower rating than any other unit!

Clime-matics have never been sold in such volume and never will be, as to preclude individually engineered specifications . . .

that's why Clime-matic users swear by and insist on "Clime-matic only" when reordering.

Clime-matic distributors are chosen with discrimination and franchised for protection . . .

that's why Clime-matic dealers sell profitably with a personal guarantee of satisfaction . . . all-ways!

You'll find Clime-matic for '53 better than ever with features embodying field-tested suggestions from Clime-matic users and dealers as well as UNITED's laboratory engineers — just one more reason why Clime-matic is the "air conditioning man's air-conditioner".

UNITED CONDITIONING CORPORATION

Executive Offices & Plant: CROTON FALLS, N. Y.

NEW YORK SALES OFFICE: 457 WEST 40th ST., NEW YORK CITY



Clime-matic WINDOW UNITS

Available in 1/2 and 1/3 H.P. Beautifully finished cabinets fit any standard window



United Conditioning Corporation

Croton Falls, N. Y.

Send us full details on Clime-matic and the name of the nearest Clime-matic distributor.

Name.....

Street.....

City..... State.....



(SC-550 illustrated)

NEW FOR '53

5 YR. WARRANTY

* TESTED & GUARANTEED
CAPACITY RATINGS

FRIGID presents NEW 1953 ROOM AIR CONDITIONERS



*Scientifically designed
by engineers for
guaranteed performance*

The FRIGID Window-type ROOM AIR CONDITIONER houses a hermetically-sealed, carefully dehydrated refrigeration system which is the basis for the conditioner's multiple functions—cooling, dehumidifying, filtering, circulating, exhausting and ventilating. Variable Cooling THERMOSTATIC CONTROL... Built-in at no extra cost!

Available in 3 sizes —
1/2 H. P., 3/4 H. P. and 1 H. P. Units
Most Liberal 5 Year Warranty &
Labor Allowance
Simple Installation
Unconditional Guarantee



FRIGID also manufactures a complete line of ventilating equipment to meet your needs... heavy duty Exhaust Fans, Blowers, Spray Booth Fans, Pedestal Fans, Attic Fans. And for the office and home — Hassock and Reversible Window Fans. You can depend on the FRIGID quality line.

Jobbers: Write for the NEW 1953 Descriptive Catalog.

FRIGID INCORPORATED

Formerly Circulators & Devices Mfg. Corp.

130 32nd STREET • BROOKLYN 32, N. Y.



Circle No. 33 on Reader Service Card



REFRIGERATION COSTS REMAIN UNCHANGED FOR MANY YEARS

By Philip D. Sang, Vice President
Goldenrod Ice Cream Co., Chicago, Ill.

"Over a period of 23 years we constructed seven ice cream hardening rooms, using cork insulation. In 1935, after consolidating production in one plant, we commissioned United Cork Companies to design and construct a new hardening room of the most modern type and efficiency. This was to maintain a temperature of -40° and called for 8000 sq. ft. of surface area.

"This room proved so successful that another room was built in 1945. So far as we can ascertain, the consumption of electricity for refrigerating these rooms is now no greater than when they were new.

"If called upon for further expansion, we would certainly again use corkboard insulation."

Integrated Responsibility

A major factor in the effectiveness of United BB Corkboard in this and thousands of other installations in meat, milk, frozen food plants and other applications requiring low-temperature insulation is to be found in the unified responsibilities of United Cork Companies... from selection of the grades of raw materials imported to the erection of the complete job.

Cork itself, of course, has unique natural insulation properties, and United Cork's patented process of block baking (BB) the cork granules into corkboard without the use of any binder makes most effective use of these natural advantages.

Each installation of United Cork BB Corkboard is planned by engineers thoroughly experienced in the requirements of refrigeration work. These engineers are located at each of United Cork's branch offices throughout the country. They are prepared to cooperate with architects and general contractors in designing low-temperature insulation as an integral part of the complete building.

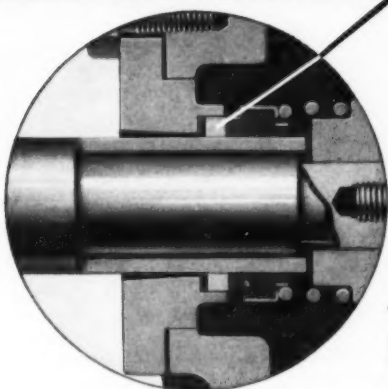
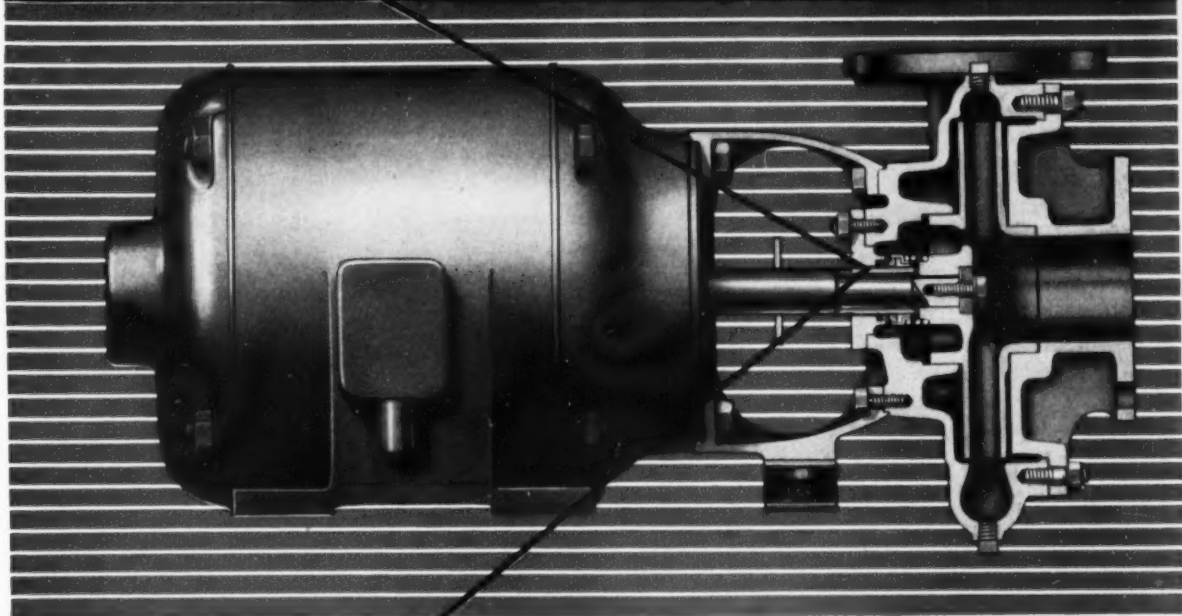
United Cork Companies' erection crews, which are also located at each of the branch offices, then take the engineering blueprints and convert the designs into a finished insulation job. The branch office concerned also checks on the operating effectiveness of each installation to assure complete customer satisfaction.

If you would like to know more about the scope of United Cork Companies' service—and about the ways in which installations have stood up under the toughest conditions—just drop a line to United Cork Companies, Department I-8, Kearny, N. J.

Circle No. 34 on Reader Service Card

APRIL, 1953 • COMMERCIAL REFRIGERATION

NEW *Remite* SEAL ENDS LEAKAGE TROUBLES



Cross-section showing Remite Mechanical Seal.

B & G *UNI-BUILT* **SERIES 1531 CENTRIFUGAL PUMP**

**... a better pump for air-conditioning
and refrigeration installations**

The "REMITE" Mechanical Seal of this pump presents a revolutionary new development in pump design ... eliminates leakage ... assures long, trouble-free life.

A carbon seal ring faces on a "REMITE" floating seat—a new type of material, *so hard it will scratch glass*—wear-proof and corrosion-resistant! This Seal is self-lubricating.

Note the pump shaft ... super-finished high grade steel ... oversized for minimum deflection ... quiet. The impeller is of sound hydraulic design, mechanically balanced, with balance ring and relief holes to reduce thrust. The heavy duty ball-bearing motor is normally furnished as drip-proof, but is also available in splash-proof, totally enclosed and explosion-proof models.

B & G Series 1531 Uni-built Pumps are made with capacities to 1200 GPM, heads to 400 feet.

Send today for catalog No. ET-452, giving complete engineering data on the B & G Series 1531 Uni-built Centrifugal Pump.



BELL & GOSSETT **C O M P A N Y**

Dept. CX-45, Morton Grove, Ill.

Canadian Licensee: S. A. Armstrong Ltd., 1400 O'Connor Drive, Toronto, Canada

Circle No. 16 on Reader Service Card

and AIR CONDITIONING • APRIL, 1953

WHY are more dealers switching to FOGEL?



Get the Facts . . .

✓A Complete Line—Sell every Prospect

You can meet every need of every prospect without hop-scotching from one line to another.

✓Exclusive Models That Are Door Openers

Designed for space-cramped neighborhood stores where competitive models can't fit. Eliminates "cut-throat" competition. Fastest profit-making food merchandisers on the market.

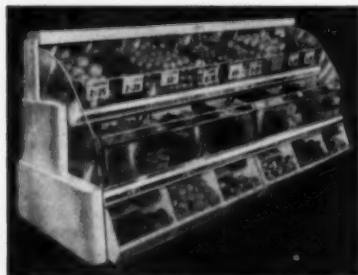
✓Protected Territory

The Fogel franchise protects the sales efforts of the dealer who does a reasonable selling job. No purchase commitments required.

✓Competitive Prices--Generous Discounts

Two big factors that help you close more sales and make more profit.

Get the Profits . . .

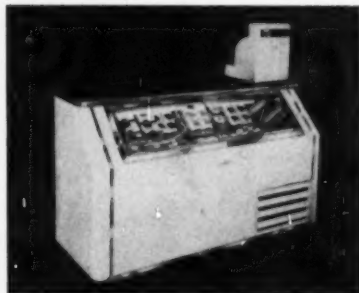


"VEGMART" COMBINATION PRODUCE MERCHANDISER

Three-deck combination produce case; refrigerated middle deck for produce; fruit display on top deck; potato-onion bins below. Complete "superette" produce departments in one case.

"ANGLE-VISION" COUNTER TOP FREEZER

Turns unprofitable "under-counter" space into a money-maker. Produces impulse sales at check-out time. Users report up to 200% increase in frozen food sales.



For Complete Information Write, Wire, Phone

FOGEL REFRIGERATOR CO.

Manufacturers of Quality Commercial Refrigeration Since 1899

5400-C EADOM ST.

Cable Address
"FOREFCO"

PHILADELPHIA 37, PA.

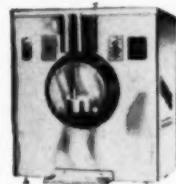
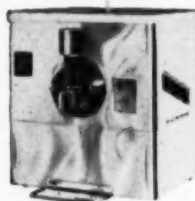
Circle No. 36 on Reader Service Card

WHAT YOUR FOUNTAIN CUSTOMERS NEED — SWEDEN MAKES!



• Most Complete Line of Ice • Cream Freezing-Dispensing • Equipment Ever Offered

• There's a SWEDEN Speed Freezer to meet every need, every budget:



• Table and floor models. Single head machines. Double head machines for variety of products, or continuous service of a single product. Single and double heads. Sizes from 4-quart to 5-gal. Batch, continuous and automatic continuous freezers. Advanced design and superior engineering, automatic freezing controls for simple operation. Sturdy construction, and accessibility of all parts for quick easy cleaning are standard SWEDEN features.

• Dispensing soft ice cream, frozen custards, malts and shakes and other long-profit specialties with amazing speed . . . a SWEDEN gives more service, requires less servicing. Pays for itself out of EXTRA profits!

For more information,
write today to:

SWEDEN SPEED FREEZERS



SWEDEN FREEZER MANUFACTURING CO.
Dept. R-2 SEATTLE 99, WASHINGTON

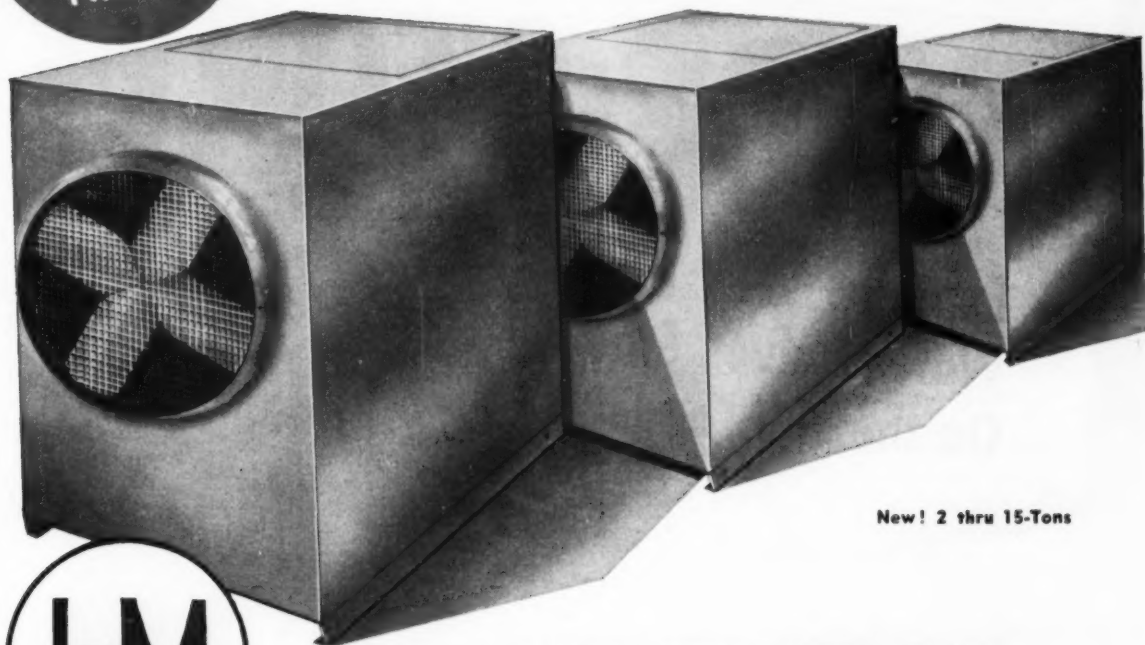
Circle No. 37 on Reader Service Card

APRIL, 1953 • COMMERCIAL REFRIGERATION

**ANOTHER
HALSTEAD &
MITCHELL
FIRST**

20-Year Guarantee!

ON THE WETTED DECK SURFACE



New! 2 thru 15-Tons

HM

RESIDENTIAL COOLING TOWERS

PRICED FOR THE HOME MARKET

Price-wise these Halstead & Mitchell Residential Cooling Towers throw open huge segments of the home and small building market to air-conditioning. Here is the development for which the industry has been waiting. Check prices today!

NOW REQUIRED IN MANY AREAS

Residential Cooling Towers recirculate precious water . . . meet requirements of municipalities which prohibit wasting cooling water to sewers. And low cost H&M units take residential air conditioning to the suburbs and rural area . . . recirculate from a cistern if need be!

MADE FOR REAL OPERATING ECONOMY

Economical, lastworthy . . . low operating cost matches low initial cost. Efficient gravity-type distributing pan eliminates windage loss since atomizing by spray nozzle is unnecessary. Low pump head pressure is another bonus of gravity distribution. And maintenance is a snap!

FAMOUS HALSTEAD & MITCHELL QUALITY

Here's *all* the quality for which Halstead & Mitchell Cooling Towers are world famous — including the 20-year Guarantee on the wetted deck surface of pressure-treated creosoted wood, against attack by rotting or fungi growth. Stainless steel fans and shafts, plus individual cabinet coatings of Vinsynite, Vinyl Zinc and chlorinated rubber add important years of life. The complete assembly is with Everdur bolts . . . disassembly is easy even after years of service.

AT LEADING WHOLESALERS EVERYWHERE

Write for descriptive bulletin from Halstead & Mitchell, one of the world's largest manufacturers of water-cooled Cleanable Condensers, and Cooling Towers up through 100-tons.



OFFICES: BESSEMER BUILDING • PITTSBURGH 22, PA.

and AIR CONDITIONING • APRIL, 1953

Circle No. 38 on Reader Service Card

EXTRA

Refrigeration Tips

EXTRA

HELPFUL INFORMATION FOR REFRIGERATION MEN

INSIDE STORY

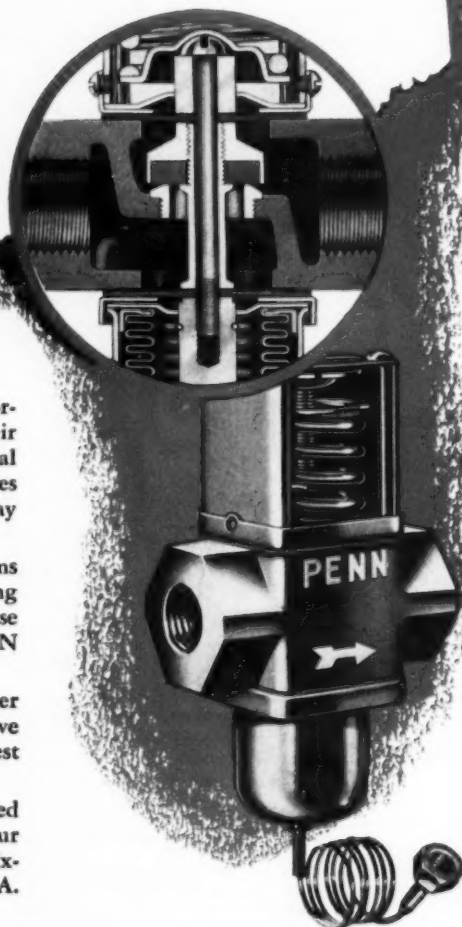
**Explains Why Penn
Water Valves Stay
On the Job Longer**

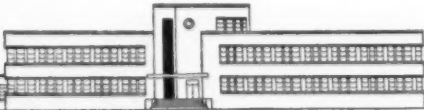
Rust, corrosion and sedimentation, the deadly enemies of ordinary water valves, are *never given a chance* to perform their destructive work and imperil the operation of commercial refrigeration or air conditioning when PENN Water Valves are used. Look at the inside of this water valve (cut-away view) and you'll see why this is true!

See how the two nylon-reinforced rubber diaphragms *definitely keep water away* from the bellows, range spring and sliding parts. Water never has a chance to attack these "working parts" and cause destruction. That's why the PENN Series 246 *stays on the job much longer*.

In addition, PENN's advanced design eliminates water hammer and sticking of seats. And the valve is very sensitive to changes in refrigerant head pressures to assure highest operating efficiency.

Built in sizes from $\frac{3}{8}$ " to $2\frac{1}{2}$ " and in flanged or threaded styles, Series 246 Water Valves are *your best buy*. Ask your wholesaler or write **Penn Controls, Inc., Goshen, Indiana**. Export Division: 13 E. 40th Street, New York 16, N. Y., U.S.A. In Canada: Penn Controls Limited, Toronto 13, Ontario.



PENN 
AUTOMATIC CONTROLS

FOR HEATING, REFRIGERATION, AIR CONDITIONING, GAS APPLIANCES, PUMPS, AIR COMPRESSORS, ENGINES
Circle No. 39 on Reader Service Card

BTU

NEWS • LAWS • TRENDS

CURRENT INTEREST IN residential cooling is based squarely on necessity, L. M. Larkin, central regional manager of the Air Conditioning Div. of General Electric Co., told a recent meeting of the Illinois Chapter of ASHVE. Larkin said that the formation of new families had decreased from 1,200,000 in 1948 to about 600,000 in 1952, and that as a result builders must create a replacement market for almost half the homes they construct. Sales in 1952, Larkin said, demonstrated to builders that year-round residential air conditioning is a practical sales tool and bids to obsolete new homes without it. In his opinion, this year will mark the beginning of a complete revolution in the marketing of packaged heating and air conditioning equipment, with air conditioning distributors, cooling and heating jobbers, and heating dealers all entering into the picture.

DEVELOPMENT OF A NEW major market for large molded plastics parts was revealed recently by John L. McMurphy, general manager of the General Electric Co.'s plastics department, who predicted that all important makes of window air conditioners will be housed in one-piece plastics cabinets by mid-1955. "In two years, the plastics industry will be producing air conditioning cabinets at an annual rate exceeding 450,000," McMurphy declared. G-E, itself a major producer of air conditioning equipment, estimates industry-wide sales of 700,000 window air conditioners in 1955, more than double the 325,000 units sold in 1952.

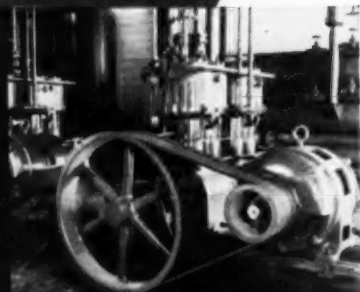
A NOVEL APPROACH to the residential air conditioning field is being used by Chrysler Airtemp in its 1953 consumer advertising campaign. Aiming its basic appeal toward the home—that is, the woman—Airtemp's program has dropped technical phraseology in favor of the "alphabet and verse" type of approach, portraying the advantages of air conditioning simply, and one at a time. As a step further, Airtemp completed its "air conditioning alphabet" after producing an amount sufficient for its consumer ads, and put the entire series into a book for children. Of course, the booklet was offered in the coupon of the consumer advertisements. While it is still too early to determine the full value of the "alphabet book", results have been encouraging so far, the company says.

AIR CONDITIONING SYSTEMS said to have double the cooling capacity of present day railway passenger cars have been developed for the new "Super Dome" railway cars which have just been introduced by Pullman for the Milwaukee Road. Each of the double-decked, glass-roofed cars have systems of 20 tons capacity, compared with the systems of 7 or 8 tons generally used for standard sleepers and coaches. Two "Solar Discs", located outside the dome section on the car's roof, supplement the regular thermostatic controls to offset the greater susceptibility of the car's interior to changes in outside temperatures due to the large expanse of glass in the dome section. These devices lower the temperature setting of the thermostats automatically to offset the heat from the sun, and when a cloud blacks out the sun the Solar Discs immediately call for more heat to keep the car comfortable.

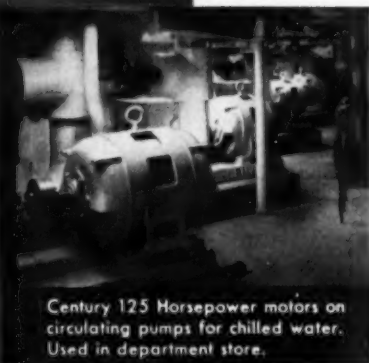
A REVOLUTIONARY NEW METHOD of bone preservation by freeze-drying has been developed by Dr. Earl W. Flosdorf, director of research and development of F. J. Stokes Machine Co., Philadelphia. Dr. Flosdorf is noted for his pioneering work in the freeze-drying of biologicals, blood plasma, and other unstable substances. The freeze-drying of bone was first accomplished at the Bethesda Naval Hospital, Bethesda, Md., where military patients have been restored to perfect health and vigor from injuries which would ordinarily have demanded amputation. The Bethesda Naval Hospital has the only bank of freeze-dried bone in the world, and the medical profession is beginning to show interest in the establishment of other bone banks.



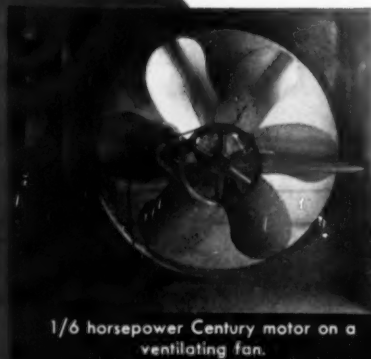
Century splash proof motor's driving fans out in the open, without any protection.



Two 100 horsepower Century motors driving refrigeration compressors.



Century 125 Horsepower motors on circulating pumps for chilled water. Used in department store.



1/6 horsepower Century motor on a ventilating fan.

WHY *Century* MOTORIZED EQUIPMENT KEEPS YOUR CUSTOMERS SATISFIED...

The motor specifications—where skillfully selected—to assure the TOP PERFORMANCE and DEPENDABLE QUIET SERVICE that is built into each class of equipment.

Refrigeration compressors require one combination of operating characteristics and specifications—fans and blowers another combination—various types of heating equipment still another.

In over 50 years, Century has developed a wide line of types of motors with literally hundreds of specifications to choose from. It is easy to ENGINEER YOUR PRODUCT PERFORMANCE—THROUGH SKILLFUL MOTOR APPLICATION.

If you have motor service problems, phone or write to any of Century's 28 District offices regarding Century's national network of service stations—the motor exchange plan will serve you whether your motors are in or out of warranty.

Specify Century Motorized Equipment—get top equipment performance—dependable quiet service—keep your customers satisfied.

CENTURY ELECTRIC COMPANY
1806 Pine Street • St. Louis 3, Missouri

Offices and Stock Points
in Principal Cities



Circle No. 40 on Reader Service Card

APRIL, 1953 • COMMERCIAL REFRIGERATION

1953

Packaged Air Conditioner Specifications

IN this special 32-page section is presented Key Specifications Data on the 1953 models of room-type air conditioners offered by 43 manufacturers, and store-type air conditioners offered by 19 manufacturers.

Information presented in this special section covers 157 models of room air conditioners, and 101 models of store air conditioners. The data shown in this section was obtained from information submitted by the various manufacturers.

In any compilation of this type, certain errors and omissions are virtually unavoidable. The Editors have endeavored to keep these to a minimum. What information is missing from these specification listings is the result of a lack of response on the part of certain firms to repeated requests for information on their products.

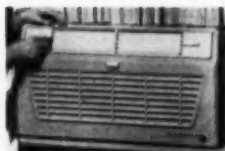
If any manufacturers of room or store type air conditioners are not represented in this section, it is only because they submitted no specifications data, because the Editors were unaware of their entry into this field, or because the Editors had been informed that the units were not presently on the market.

Data on equipment for year-round residential air conditioning has not been included in this section, but it is the intention of the Editors to present it in another special section.

An index to the listings of individual manufacturers of both room and store type air conditioners will be found on page 72 of this issue.

Room Air Conditioners...

ADMIRAL CORP. "Admiral"



AIRTEMP DIV. "Airtemp"



COOLERATOR CO. "Coolerator"



AUTOMATIC FIRMING CORP. "Cool-A-Matic"



MODEL NO.	PRO-VISION FOR HEATING	CABINET DIMENSIONS (in.)			* COOLING CAPACITY (Btu/hr)	APPROX. AREA CONDITIONED (sq. ft.)	ELECTRICAL CHARACTERISTICS		
		Width	Height	Depth			Operating Current	Power Input	
33-C-3	No	26 ⁷ / ₁₆	14 ⁷ / ₃₂	22	4200	.....	1/60/115	670	
50-C-5	No	26 ⁷ / ₁₆	14 ¹ / ₃₂	22	6200	.....	1/60/115	955	
75-C-5	No	26 ⁷ / ₁₆	14 ¹ / ₃₂	22	9100	.....	1/60/115	1163	
75-C-7	No	26 ⁷ / ₁₆	14 ¹ / ₃₂	22	9100	.....	1/60/230	.....
100-C-7	No	26 ⁷ / ₁₆	14 ¹ / ₃₂	23 ³ / ₄	11200	.....	1/60/230	1350	
1675-1	....	27 ¹ / ₂	15 ³ / ₄ *	35 ³ / ₄	8200	.....	1/60/115	300	
1600-1	....	27 ¹ / ₂	15 ³ / ₄ *	35 ³ / ₄	10,000	.....	1/60/230	385	
* Height of front section is only 13 ³ / ₄									
AB-33	No	23 ¹ / ₂	14 ¹ / ₂	29 ³ / ₄	4200	230	1/60/110	.....
AB-50	No	23 ¹ / ₂	14 ¹ / ₂	29 ³ / ₄	6200	.....	1/60/110	.....
AB-75	No	23 ¹ / ₂	14 ¹ / ₂	29 ³ / ₄	8850	485	1/60/110	.....
AB-76	No	23 ¹ / ₂	14 ¹ / ₂	29 ³ / ₄	8850	485	1/60/208	.....
RC-503	....	27	17	28 ¹ / ₂	6000	300	1/110	.....
RC-753	....	27	17	28 ¹ / ₂	9000	450	1/110	.....
RC-103	....	27	16 ¹ / ₂	36	12,000	600	1/220	.....
* Ounces									

	AIR CAPACITIES (cfm)			COMPRESSOR						FAN MOTOR DATA		COIL DATA		REFRIGERANT		AIR FILTER		NET WT. (lb.)
	Circ.	Fresh	Exhaust	Type	HP	No. Cyl.	RPM	Make	Oil Chg.	RPM	HP	Cond. (rows)	Evap. (rows)	Type	Lb.	Type	Dim. (in.)	
	150	.....	.....	Herm.	1/2	1	.....	Tecum.	40	1050	1/15	2	2	F12	1.0	T	16 x 9 1/4 x 1/2	141
	220	45	60	Herm.	1/2	1	.....	Tecum.	40	1050	1/13	2	2	F12	1.25	T	16 x 9 1/4 x 1/2	149
	300	60	80	Herm.	3/4	2	.....	Tecum.	55	1050	1/13	2	2	F12	1.33	T	16 x 9 1/2 x 1/2	167
	300	60	80	Herm.	3/4	2	.....	Tecum.	55	1050	1/13	2	2	F12	1.33	T	16 x 9 1/2 x 1/2	167
	350	75	110	Herm.	1	2	.....	Tecum.	55	1070	1/10	3	3	F22	1.59	T	16 x 9 1/4 x 1/2	181.5
	300	.....	.....	Herm.	3/4	2	1725	Tecum.	55	.....	.....	.....	1	F12	1.55	R	13 1/2 x 23 1/2	193
	385	.....	.....	Herm.	1	2	1725	Tecum.	55	.....	.....	.....	1	F12	1.80	R	13 1/2 x 23 1/2	199
	200	100	80	Herm.	1/2	1	.....	Tecum.	40	1100	1/15	1	1	F12	1.25	C	12 3/4 x 12 3/4 x 1/2	150
	210	110	85	Herm.	1/2	1	.....	Tecum.	40	1100	1/15	2	2	F12	1.35	C	12 3/4 x 12 3/4 x 1/2	158
	300	150	130	Herm.	3/4	2	.....	Tecum.	55	1100	1/15	3	2	F12	1.5	C	12 3/4 x 12 3/4 x 1/2	178
	300	150	130	Herm.	3/4	2	.....	Tecum.	55	1100	1/15	3	2	F12	1.5	C	12 3/4 x 12 3/4 x 1/2	178
	300/250	50	50	Herm.	1/2	2	.....	Tecum.	.....	1050	1/10	2	2	F12	17"	T	9 x 14 x 1/2	210
	300/250	50	50	Herm.	3/4	2	.....	Tecum.	.....	1050	1/10	2	2	F12	21"	T	9 x 14 x 1/2	210
	400/325	150	50	Herm.	1	2	.....	Tecum.	.....	1140	1/4	2	2	F22	26"	T	7 1/2 x 21 x 1/2	250

Room Air Conditioners...

BRYANT HEATER DIV.

"Bryant"



CRANE CO.

"Crane-Line"



CROSLEY DIV.

"Crosley"



CARRIER CORP.

"Carrier"



MODEL NO.	PRO-VISION FOR HEATING	CABINET DIMENSIONS (in.)			COOLING CAPACITY (Btu/hr)	APPROX. AREA CONDITIONED (sq. ft.)	ELECTRICAL CHARACTERISTICS		
		Width	Height	Depth			Operating Current	Power Input	
50D-551	....	26 1/4	15 1/2	33 1/2	6000	.....	1/60/115	925	
75D-551	....	26 1/4	15 1/2	33 1/2	9000	.....	1/60/115 1/60/208 1/60/230	1300	
100D-551	....	26 1/4	15 1/2	34 1/2	12,000	.....	1/60/230	1600	
* Ounces									
50-CR-551	No	26 3/8	15 1/2	33 3/8	6000	.....	1/60/115	925	
75-CR-551	No	26 3/8	15 1/2	33 3/8	9000	.....	1/60/115 1/60/208 1/60/230	1300	
100-CR-551	No	26 3/8	15 1/2	34 3/8	12,000	.....	1/60/230	1600	
ACE-33	....	22 3/4	13 1/2	27	4175	230	1/60/115	605	
ACE-50	....	26 1/4	13 3/4	27 3/4	6050	325	1/60/115	925	
ACE-75D ACE-75S	....	26 1/4	15 3/4	27 3/4	9050	485	1/60/115 1/60/230	1250	
ACE-100	....	26 3/4	15 3/4	27 3/4	10,750	600	1/60/230	1440	
* Ounces									
51E1-119	....	24 3/4	12 3/4	25 1/4	4000	.....	1/60/115	.....
51E2-119	....	24 3/4	12 3/4	25 1/4	6000	.....	1/60/115	.....
51E3-119	....	26 3/4	14 1/4	33 3/4	9400	.....	1/60/115	.....
51E4-119	....	26 3/4	14 1/4	33 3/4	12,000	.....	1/60/230	.....

AIR CAPACITIES (cfm)			COMPRESSOR						FAN MOTOR DATA		COIL DATA		REFRIGERANT		AIR FILTER		NET WT. (lb.)
Circ.	Fresh	Exhaust	Type	HP	No. Cyl.	RPM	Make	Oil Chg.	RPM	HP	Cond. (rows)	Evap. (rows)	Type	Lb.	Type	Dim. (in.)	
225	65	40	Herm.	1/2	1	1725	Tecum.	40	1020	1/12	2	2	F12	1.2	T	10 x 16 3/4 x 1/2	220
325	75	50	Herm.	3/4	2	1725	Tecum.	55	1020	1/12	4	2	F12	1.5	T	21 3/4 x 10 x 1/2	230
375	90	65	Herm.	1	2	1725	Tecum.	55	1020	1/12	4	3	F22	27*	T	21 3/4 x 10 x 1/2	260
225	.....	.....	Herm.	1/2	1	.....	Tecum.	....	1020	1/12	2	2	Fr.	1	T	.....	230
325	.....	.....	Herm.	3/4	1	.....	Tecum.	....	1020	1/12	4	4	Fr.	1	T	.....	240
375	.....	.....	Herm.	1	1	.....	Tecum.	....	1020	1/12	4	4	Fr.	1	T	.....	260
150	35	75	Herm.	1/3	1	1725	Tecum.	40	1085	1/40	3	2	F12	19*	T	11 3/4 x 9 x 1/2	140
220	40	60	Herm.	1/2	1	1725	Tecum.	40	1265 1050	1/150 1/40	3	2	F12	19.1*	T	12 x 20 1/2 x 1/2	178
300	50	80	Herm.	3/4	2	1725	Tecum.	55	1265 1050	1/100 1/30	3	2	F12	25.3*	T	14 x 20 1/2 x 1/2	198
350	75	150	Herm.	1	2	1725	Tecum.	55	1070	1/12	3	2	F22	29.3*	T	14 x 10 x 1/2	218
.....	.....	.....	Acces. Herm.	1/3	..	1750	.....	.....	.....	.....	.....	.....	F12	1.25	T	21 3/4 x 9 1/2	180
.....	.....	.....	Acces. Herm.	1/2	..	1750	.....	.....	.....	.....	.....	.....	F12	1.5	T	21 3/4 x 9 1/2	180
.....	.....	.....	Acces. Herm.	3/4	..	1750	.....	.....	.....	.....	.....	.....	F12	1.8	T	23 3/4 x 11 1/16	240
.....	.....	.....	Acces. Herm.	1	..	1750	.....	.....	.....	.....	.....	.....	F12	2	T	23 3/4 x 11 1/16	245

Room Air Conditioners...

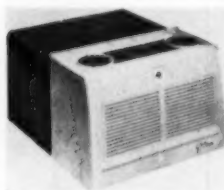
CAVALIER AIR CONDITIONING CO. "Cavalier", "Lincoln"



MODEL NO.	PRO-VISION FOR HEATING	CABINET DIMENSIONS (in.)			COOLING CAPACITY (Btu/hr)	APPROX. AREA CONDITIONED (sq. ft.)	ELECTRICAL CHARACTERISTICS		
		Width	Height	Depth			Operating Current	Power Input	
F752	27	15	31	.....	450	13/115 7½/230	.....
F102	27	15	31	.....	600	.....	.....
F202	28	19½	43	.....	1100	.....	.....
W103*	27	33	15	.....	600	.....	.....

* Wall type unit — grille 24½" x 16½".

GIBSON REFRIGERATOR CO. "Gibson"



GAC-3310	....	26½	16½	30	3875	250	.....	625	
GAC-5010	....	26½	16½	30	5850	350	.....	850	
GAC-7520	....	26½	16½	30	8850	475	.....	1220	
GAC-7510	....	26½	16½	30	8850	475	.....	1120	

* Ounces

INTERNATIONAL HARVESTER CO. "Decorator"



L-350	....	22¾	12¾	26	4000	.....	1/60/115	.....
L-500	....	26¼	15½	30¾	5500	.....	1/60/115	.....
L-750*	....	26¼	15½	30¾	8500	.....	1/60/115	.....
L-1000	....	26¼	15½	30¾	10,600	.....	1/60/230	.....

* Model 751 for 230 volt operation.

WELBILT STOVE CO. "Welbilt"

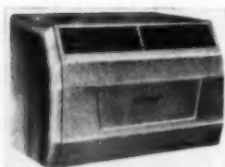


333	....	22½	15½	13½	4450	180	115	.....
350	....	22½	15½	13½	7400	320	115	.....
375	....	26½	15½	13½	9125	450	115	.....
3100	....	26½	15½	13½	12,100	575	230	.....

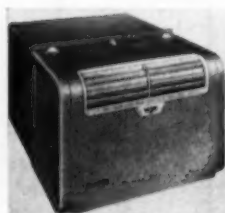
No.	AIR CAPACITIES (cfm)			COMPRESSOR						FAN MOTOR DATA		COIL DATA		REFRIGERANT		AIR FILTER		NET WT. (lb.)
	Circ.	Fresh	Exhaust	Type	HP	No. Cyl.	RPM	Make	Oil Chg.	RPM	HP	Cond. (rows)	Evap. (rows)	Type	Lb.	Type	Dim. (in.)	
393	.....	.....	.....	Acces. Herm.	3/4	2	.....	Cope.	....	1550	1/30	3	2	F12	1 1/2	C	11 7/8 x 15 x 1/2	200
393	.....	.....	.....	Acces. Herm.	1	2	.....	Cope.	....	1550	1/30	4	2	F12	1 3/4	C	11 7/8 x 15 7/8 x 1/2	225
600	.....	.....	.....	Access Herm.	....	2	.....	Cope.	....	1550	1/30	4	3	F12	3	C	16 x 19 1/2 x 1/2	350
393	.....	.....	.....	Acces. Herm.	1	2	.....	Cope.	....	1550	1/30	4	2	F12	1 3/4	C	.....	200
135	10	10	10	Herm.	1/3	1	1725	Tecum.	35	1070	1/30	2	2	F12	19"	T	10 x 20 x 1	135
200	10	10	10	Herm.	1/2	1	1725	Tecum.	40	1070	1/30	2	2	F12	22"	T	10 x 20 x 1	165
290	15	15	15	Herm.	3/4	2	1725	Tecum.	55	1060 850	1/30	3	2	F12	25"	T	12 x 24 x 1	200
290	15	15	15	Herm.	3/4	2	1725	Tecum.	55	1060 850	1/30	3	2	F12	25"	T	12 x 24 x 1	200
.....	.....	.....	.....	Herm.	1/3	..	.....	.....	.....	.....	.....	..	..	.....	.....	..	.....	115
.....	.....	.....	.....	Herm.	1/2	..	.....	.....	.....	.....	.....	..	..	.....	.....	..	.....	163
.....	.....	.....	.....	Herm.	3/4	..	.....	.....	.....	.....	.....	..	..	.....	.....	..	.....	187
.....	.....	.....	.....	Herm.	1	..	.....	.....	.....	.....	.....	..	..	.....	.....	..	.....	198
170	80	80	80	Herm.	1/3	..	.....	Tecum.	....	1450	1/30	2	1	F12	.....	T	18 x 14 x 1/2	121
220	100	100	100	Herm.	1/2	..	.....	Tecum.	....	1450	1/40	2	1	F12	.....	T	18 x 14 x 1/2	142
310	120	120	120	Herm.	3/4	..	.....	Tecum.	....	1450	1/40	2	1	F12	.....	T	22 x 14 x 1/2	180
390	150	150	150	Herm.	1	..	.....	Tecum.	....	1450	1/30	3	1	F22	.....	T	22 x 14 x 1/2	198

Room Air Conditioners...

FRIGID, INC. "Frigid"



FRIGIDAIRE DIV. "Frigidaire"



GENERAL ELECTRIC CO. "G-E"



MITCHELL MFG. CO. "Mitchell"



MODEL NO.	PRO-VISION FOR HEATING	CABINET DIMENSIONS (in.)			COOLING CAPACITY (Btu/hr)	APPROX. AREA CONDITIONED (sq. ft.)	ELECTRICAL CHARACTERISTICS		
		Width	Height	Depth			Operating Current	Power Input	
F7950D	....	26 3/4	16	28 1/2	6050	250	1/50/115 1/60/115	900	
F7975D	....	26 3/4	16	28 1/2	9150	350	1/50/115 1/60/115	1250	
F7975DA	....	26 3/4	16	28 1/2	9150	350	1/50/230 1/60/230	1250	
F791008	....	26 3/4	16	28 1/2	11,300	450	1/50/230 1/60/230	1475	
Super-33	....	22 1/2	16 1/4	30 1/4	.....	.....	1/60/115	.....
Super-50	....	28 1/2	16 1/4	31 1/2	.....	.....	1/60/115	.....
Twin-75	....	28 1/2	16 1/4	31 1/2	.....	.....	1/60/115 1/60/230	.....
Twin-100	....	28 1/2	16 1/4	31 1/2	.....	.....	1/60/115 1/60/230	.....
* Ounces									
FA55B1	....	27	14 3/8	28 1/8	.....	.....	.....	910	
FA75A4	....	27	14 3/8	33	.....	.....	.....	1360	
FA75A5	....	27	14 3/8	33	.....	.....	230	1360	
FA75A7	....	27	14 3/8	33	.....	.....	115	1160	
* Ounces									
M-133	Yes	22 1/4	13 3/4	27 3/4	4600	200	1/60/115	.....
M-123	Yes	22 1/4	13 3/4	27 3/4	6300	350	1/60/115	.....
M-343	Yes	28	16	30	9100	450	1/60/115 1/60/230 1/60/208	.....
M-1003	Yes	28	16	30	11,200	550	1/60/230 1/60/208	.....
* Ounces									

	AIR CAPACITIES (cfm)			COMPRESSOR						FAN MOTOR DATA		COIL DATA		REFRIGERANT		AIR FILTER		NET WT. (lb.)
	Circ.	Fresh	Exhaust	Type	HP	No. Cyl.	RPM	Make	Oil Chg.	RPM	HP	Cond. (rows)	Evap. (rows)	Type	Lb.	Type	Dim. (in.)	
	220	40	100	Herm.	1/2	1	.....	Tecum.	40	1020	1/15	2	1	F12	.....	T	11 x 19 3/8	205
	310	60	150	Herm.	3/4	2	.....	Tecum.	55	1020	1/12	3	2	F12	.....	T	11 x 19 3/8	225
	310	60	150	Herm.	3/4	2	.....	Tecum.	55	1020	1/12	3	2	F12	.....	T	11 x 19 3/8	225
	350	80	175	Herm.	1	2	.....	Tecum.	55	1020	1/8	4	2	F22	.....	T	11 x 21 1/8	245
	200	40	40	Herm.	1/2	..	1750	Own	....	1050	1/30	2	2	F	.....	T	.....	137
	220	40	40	Herm.	1/2	..	1750	Own	19	1150	1/12	2	2	F	34*	T	.....	165
	255	50	50	Herm.	3/4	..	1750	Own	....	1050	1/15	3	3	F	.....	T	.....	226
	300	50	50	Herm.	1	..	1750	Own	17	1150	1/12	3	3	F	34*	T	.....	260
	180	0-22	0-22	Herm.	1/2	1	1800	Own	20	1050	1/40	4	2	F12	16*	T	21 x 8 7/8 x 1/2	171
	310	0-40	0-50	Herm.	3/4	2	1800	Tecum.	55	1550	1/30	4	4	F12	28*	T	21 x 8 7/8 x 1/2	204
	310	0-40	0-50	Herm.	3/4	2	1800	Tecum.	55	1550	1/30	4	4	F12	28*	T	21 x 8 7/8 x 1/2	204
	310	0-40	0-50	Herm.	3/4	2	1800	Tecum.	55	1550	1/30	4	4	F12	28*	T	21 x 8 7/8 x 1/2	204
	200	50	150	Herm.	1/2	1	1725	Tecum.	55	1050	1/30	1	1	F12	13 1/2*	T	20 1/4 x 9 1/4 x 1/2	115
	200	50	150	Herm.	1/2	1	1725	Tecum.	55	1050	1/30	1	1	F12	14 *	T	20 1/4 x 9 1/4 x 1/2	120
	292	65	150	Herm.	3/4	2	1725	Tecum.	55	.....	.....	3	1	F12	18 1/4*	T	21 3/4 x 12 1/16 x 1/2	169
	292	65	150	Herm.	1	2	1725	Tecum.	55	.....	.....	4	2	F22	21 1/2*	T	21 3/4 x 12 1/16 x 1/2	190

Room Air Conditioners...

YORK CORP. "York"



MODEL NO.	PRO-VISION FOR HEATING	CABINET DIMENSIONS (in.)			COOLING CAPACITY (Btu/hr)	APPROX. AREA CONDITIONED (sq. ft.)	ELECTRICAL CHARACTERISTICS		
		Width	Height	Depth			Operating Current	Power Input	
A-30	....	26	13 3/4	26 3/8	4000	.....	1/60/115	.....
A50S	....	26	14 3/8	27 1/2	4650	.....	1/60/115	.....
A50D	....	26 1/4	14 3/8	27 1/4	5600	.....	1/60/115	.....
A75CM A75CMR	*	26 1/4	14 3/8	34 3/4	8400	.....	1/60/115 1/60/220 1/60/208	.....
A100CM A100CMR	*	26 1/4	14 3/8	34 3/4	9800	.....	1/60/115 1/60/220 1/60/208	.....
A100M A100MR	*	27 1/2	14	40 1/2	10,500	.....	1/60/220 1/60/208	.....
* Heating provided on all "R" models									
AC-333-B21	....	22 3/4	13 1 1/8	26 1/8	4175	230	1/60/115	.....
AC-350-B21	....	22 3/4	13 1 1/8	26 1/8	6050	325	1/60/115	.....
S-B21 AC-375-S-B23 S-B33	....	26 3/32	15 1 7/32	27 3/4	9010	485	1/60/115 1/60/230	.....
D-B21 AC-375-D-B23 D-B33	....	26 3/32	15 1 7/32	27 3/4	9010	485	1/60/115 1/60/230	.....
AC-3100-B33	....	26 3/32	15 1 7/32	27 3/4	10,650	575	1/60/230	.....
AC-3100-C3	....	37	38 1/4	20 1/2	10,600	575	1/60/230	.....
AC-3150-C3	....	37	38 1/4	20 1/2	15,500	835	1/60/230	.....
* Units have reverse cycle provision for heating.									
4	No	22 1/2	13 1/8	26 1/2	4175	210	1/60/115	.....
6	No	22 3/8	13 1/8	26 1/2	6050	300	1/60/115	.....
8	No	26 1/4	15 3/8	27 3/4	9010	520	1/60/115 1/60/208 1/50-60/230	.....
11	No	26 1/4	15 1/8	26 3/4	.....	600	1/60/230	.....
RAC-60 LRAC-60	....	24 1/8	13 3/8	28 3/8	6000	300	60/115	.....
RAC-80 LRAC-80	....	26 1/2	13 3/8	33 3/4	8800	450	60/115 60/208 60/230	.....
* Ounces									

REMINGTON AIR CONDITIONING DIV. "Remington"



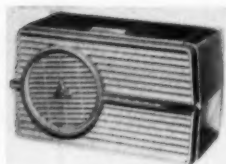
NASH-KELVINATOR CORP. "Kelvinator", "Leonard"



	AIR CAPACITIES (cfm)			COMPRESSOR						FAN MOTOR DATA		COIL DATA		REFRIGERANT		AIR FILTER		NET WT. (lb.)
	Circ.	Fresh	Exhaust	Type	HP	No. Cyl.	RPM	Make	Oil Chg.	RPM	HP	Cond. (rows)	Evap. (rows)	Type	Lb.	Type	Dim. (in.)	
				Herm.	1/3	..	.....	Own	....	.....	1/30	..	..	F22	.....	T	8 3/8 x 10 1/4 x 1/2	104
				Herm.	1/2	..	.....	Own	....	.....	1/30	..	..	F22	.....	T	8 3/8 x 10 1/4 x 1/2	128
				Herm.	1/2	..	.....	Own	....	.....	1/15	..	..	F12	.....	T	6 x 20 x 5/8	150
				Herm.	3/4	..	.....	Own	....	.....	1/6	..	..	F22	.....	T	7 3/8 x 20 3/4 x 5/8	225
				Herm.	1	..	.....	Own	....	.....	1/6	..	..	F22	.....	T	7 3/8 x 20 3/4 x 5/8	245
				Herm.	1	..	.....	Own	....	.....	1/15 1/15	..	..	F22	.....	T	12 3/4 x 19 3/4 x 1/2	208
	140	35	70	Herm.	1/3	..	.....	.....	....	1090	1/40	..	..	F12	.....	T	11 3/4 x 9 x 1/2	140
	190	.....	95	Herm.	1/2	..	.....	.....	....	1090	1/50	..	..	F12	.....	T	11 3/4 x 9 x 1/2	150
	300	50	80	Herm.	3/4	..	.....	.....	....	.....	1/20 1/100	..	..	F12	.....	T	20 1/2 x 14 x 1/2	198
	300	50	80	Herm.	3/4	..	.....	.....	....	.....	1/20 1/100	..	..	F12	.....	T	20 1/2 x 14 x 1/2	198
	378	74	147	Herm.	1	..	.....	.....	....	1070	1/2	..	..	F22	.....	T	14 x 10 x 1/2	218
	400	75	.....	Herm.	1	..	.....	.....	....	.....	0.2	..	..	F22	.....	T	8 x 30	340
	440	75	.....	Herm.	1 1/2	..	.....	.....	....	.....	1.8	..	..	F12	.....	T	8 x 30	415
	134	35	70	Herm.	1/3	1	1725	Tecum.	....	1090	1/40	2	2	F12	1	T	9 x 11 3/4	140
	190	35	95	Herm.	1/2	1	1725	Tecum.	....	1090	1/50	3	3	F12	.....	T	9 x 11 3/4	150
	330	50	80	Herm.	3/4	2	1725	Tecum.	....	1090	1/10	3	2	F12	1.5	T	20 1/2 x 14	190
	300	75	150	Herm.	1	2	1725	Tecum.	....	1050	1/12	4	4	F22	.....	T	11 3/4 x 13 1/2	218
	200	90	130	Herm.	1/2	2	1725	Own	....	1725	1/12	3	3	F12	14 1/2 *	C	9 x 22	141
	300	210	200	Herm.	3/4	2	1725	Own	....	1725	1/15	3	3	F12	18 1/2 *	C	9 x 22	197

Room Air Conditioners...

FEDDERS-QUIGAN CORP. "Fedders"



PHILCO CORP. "Philco"



SERVEL, INC. "Wonderair"



MODEL NO.	PRO-VISION FOR HEATING	CABINET DIMENSIONS (in.)			COOLING CAPACITY (Btu/hr)	APPROX. AREA CONDITIONED (sq. ft.)	ELECTRICAL CHARACTERISTICS		
		Width	Height	Depth			Operating Current	Power Input	
W34	....	23 $\frac{1}{4}$	14 $\frac{1}{8}$	27 $\frac{1}{4}$	4175	230	1/60/115	.....
W36	....	23 $\frac{1}{4}$	14 $\frac{1}{8}$	27 $\frac{1}{4}$	6050	325	1/60/115	.....
W39	....	27 $\frac{1}{4}$	16 $\frac{1}{4}$	27 $\frac{1}{4}$	9010	485	1/60/115 1/60/208 1/60/230	.....
DW39	....	27 $\frac{1}{4}$	16 $\frac{1}{4}$	27 $\frac{1}{4}$	9010	485	1/60/115 1/60/208 1/60/230	.....
W311	....	27 $\frac{1}{4}$	16 $\frac{1}{4}$	27 $\frac{1}{4}$	11,700	620	1/60/208 1/60/230	.....
F17	....	33 $\frac{3}{8}$	36 $\frac{3}{8}$	18 $\frac{3}{8}$	9010	.....	1/60/115	.....
F310	....	37 $\frac{1}{2}$	39 $\frac{1}{2}$	21 $\frac{3}{4}$	10,600	.....	1/60/230	.....
F315	....	37 $\frac{1}{2}$	39 $\frac{1}{2}$	21 $\frac{3}{4}$	15,500	.....	1/60/208 1/60/230	.....
40-J 40-JL	No	26 $\frac{1}{8}$	13 $\frac{1}{4}$	27 $\frac{1}{2}$	.....	240	1/60/115	.....
60-J 60-JL	No	26 $\frac{3}{8}$	14 $\frac{1}{4}$	28 $\frac{1}{4}$	.....	355	1/60/115	.....
86-J 86-JL	*	26 $\frac{1}{4}$	14 $\frac{1}{4}$	36 $\frac{1}{4}$	.....	510	1/60/115- 208-230	.....
106-J 106-JL	*	27 $\frac{3}{4}$	14	38 $\frac{3}{4}$	.....	685	1/60/230-208	.....
184-J	....	37 $\frac{1}{4}$	29 $\frac{1}{4}$	25	.....	510	1/60/115-230	.....
1104-J	....	37 $\frac{1}{4}$	29 $\frac{1}{4}$	25	.....	620	1/60/230-208	.....
1204-J	....	42 $\frac{1}{4}$	39 $\frac{1}{4}$	22 $\frac{3}{4}$	.....	1900	1/60/230-208	.....
*Units have reverse cycle provision for heating.									
DW-93	....	27 $\frac{3}{8}$	15 $\frac{1}{4}$	15 $\frac{1}{4}$	8500	.....	1/60/115 1/60/208 1/60/230	.....
RAC-93	....	27 $\frac{3}{8}$	15 $\frac{1}{4}$	15 $\frac{1}{4}$	8500	.....	1/50-60/115 1/50-60/230 1/60/208	.....
DW-123	....	27 $\frac{3}{8}$	15 $\frac{1}{4}$	15 $\frac{1}{4}$	10,500	.....	1/60/208 1/60/230	.....
RAC-123	....	27 $\frac{3}{8}$	15 $\frac{1}{4}$	15 $\frac{1}{4}$	10,500	.....	1/50-60/230 1/60/208	.....
* Ounces									

	AIR CAPACITIES (cfm)			COMPRESSOR						FAN MOTOR DATA		COIL DATA		REFRIGERANT		AIR FILTER		NET WT. (lb.)
	Circ.	Fresh	Exhaust	Type	HP	No. Cyl.	RPM	Make	Oil Chg.	RPM	HP	Cond. (rows)	Evap. (rows)	Type	Lb.	Type	Dim. (in.)	
	134	.....	.....	Herm.	1/2	..	1725	Tecum.	....	1090	1/40	....	....	F12	.....	T	11 3/4 x 9 x 1/2	140
	190	.....	.....	Herm.	1/2	..	1725	Tecum.	....	1090	1/20	3	....	F12	.....	T	11 3/4 x 9 x 1/2	150
	300	.....	.....	Herm.	3/4	..	1725	Tecum.	....	1250 1070	1/100 1/50	3	....	F12	.....	T	10 1/2 x 14 x 1/2	198
	300	.....	.....	Herm.	3/4	..	1725	Tecum.	....	1360 1070	1/100 1/50	3	....	F12	.....	T	10 1/2 x 14 x 1/2	198
	300	.....	.....	Herm.	1	..	1725	Tecum.	....	1050	1/12	4	....	F22	.....	T	10 x 14 x 1/2	218
	310	.....	.....	Herm.	3/4	..	1725	Tecum.	....	.....	.....	.....	.....	F	.....	T	10 1/2 x 17 x 1/2	320
	360	.....	.....	Herm.	1	..	1725	Tecum.	....	.....	.....	.....	.....	F	.....	T	8 x 30 x 1	400
	400	.....	.....	Herm.	1 1/2	..	1725	Tecum.	....	.....	.....	.....	.....	F	.....	T	8 x 30 x 1	430
	130	40	.....	Herm.	1/2	..	.....	York	....	.....	1/20	..	..	F	.....	T	8 3/8 x 10 1/4 x 1/2	104
	220	200	35	Herm.	1/2	..	.....	York	....	.....	1/18	..	..	F	.....	T	6 x 20 x 3/4	155
	300	240	50	Herm.	3/4	..	.....	York	....	.....	1/6	..	..	F	.....	T	7 1/8 x 23 1/2 x 3/4	196
	320	250	250	Herm.	1	..	.....	York	....	.....	(2) 1/50 1/33	..	..	F	.....	T	12 3/4 x 19 3/4 x 1/2	208
	365	250	130	Herm.	3/4	..	.....	.....	....	.....	.....	..	..	F	.....	..	.....	.....
	375	250	130	Herm.	1	..	.....	.....	....	.....	.....	..	..	F	.....	..	.....	.....
	925	.....	.....	Herm.	(2) 1	..	.....	.....	....	.....	.....	..	..	F	.....	..	.....	.....
	.....	.....	.....	Herm.	3/4	..	.....	Serv.	.....	1050 800	1/12	2	3	F12	19"	T	6 1/2 x 23 3/8 x 1/2	195
	.....	.....	.....	Herm.	3/4	..	.....	Serv.	.....	1050 800	1/12	3	4	F12	23"	T	6 1/2 x 23 3/8 x 1/2	195
	.....	.....	.....	Herm.	1	..	.....	Serv.	.....	1050	1/12	2	3	F12	19"	T	6 1/2 x 23 3/8 x 1/2	205
	.....	.....	.....	Herm.	1	..	.....	Serv.	.....	1050	1/12	3	4	F12	23"	T	6 1/2 x 23 3/8 x 1/2	205

Room Air Conditioners...

CHELSEA FAN & BLOWER CO.

"Chelsea"



UNITED STATES AIR COND. CORP.

"usAIRco"



VIKING REFRIGERATORS



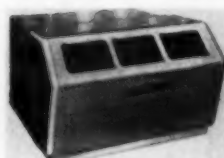
UNIVERSAL MAJOR ELEC APPLIANCE CO.

"Universal"



DAYTON PUMP & MFG. CO.

"Rapidayton"



MODEL NO.	PRO-VISION FOR HEATING	CABINET DIMENSIONS (in.)			COOLING CAPACITY (Btu/hr)	APPROX. AREA CONDITIONED (sq. ft.)	ELECTRICAL CHARACTERISTICS		
		Width	Height	Depth			Operating Current	Power Input	
RMC-1	No	25½	15	19½	4100	230	.....	600	
RMC-2	No	28¾	14¾	25	5850	300	.....	850	
RMC-3	No	28½	14¾	30¾	8900	450	.....	1250	
7950D	....	26¾	16	28½	6050	250	1/60/115 1/50/115	900	
7975D	....	26¾	16	28½	9150	350	1/60-50/115 1/60-50/230	1250	
7910D	....	26¾	16	28½	11,300	450	1/60/230 1/50/230	1475	
* Ounces									
RC-5053	Yes	28	15½	29	6400	150-300	1/60/115	.....
RC-7553	Yes	28	15½	29	8200	250-400	1/60/115	.....
RC-10053	Yes	28	15½	29	10,500	350-500	1/60/230	.....
CA-60	....	13	14	8	6100	325	60/110/115	1150	
URC50-53	....	26½	16½	29½	6100	325	60/110/115	1150	
URC75-53	....	26½	16½	29½	9100	485	60/110/115	1300	
W-8200	....	13	14	8*	6100	325	1/60/110 1/60/115	.....
W-8210	....	26½	16½	29½	9100	485	60/115	.....
* Condensing unit located outside room measures 14¾ x 19¾ x 13¾									

AIR CAPACITIES (cfm)			COMPRESSOR							FAN MOTOR DATA		COIL DATA		REFRIGERANT		AIR FILTER		NET WT. (lb.)
Circ.	Fresh	Exhaust	Type	HP	No. Cyl.	RPM	Make	Oil Chg.	RPM	HP	Cond. (rows)	Evap. (rows)	Type	Lb.	Type	Dim. (in.)		
165	30	.....	Herm.	1/2	1	.....	Tecum.	.....	1050	1/12	2	2	F12	.....	C	.....	125
220	50	.....	Herm.	1/2	1	.....	Tecum.	.....	1050	1/12	..	..	F12	.....	C	7 7/8 x 19 1/8 x 1/2	160
310	80	.....	Herm.	3/4	2	.....	Tecum.	.....	1080	1/10	2	2	F12	.....	C	.....	200
220	40	100	Herm.	1/2	1	1725	Tecum.	40	1020	1/15	2	1	F12	15"	T	11 x 19 3/8 x 1/2	185	
310	60	150	Herm.	3/4	2	1725	Tecum.	55	1020	1/12	3	2	F12	22"	T	11 x 19 3/8 x 1/2	205	
350	80	175	Herm.	1	2	1725	Tecum.	55	1020	1/8	4	2	F12	30"	T	11 x 21 1/8 x 1/2	225	
220	200	150	Herm.	1/2	..	.....	Tecum.	.....	.....	.....	3	1	F22	1.1	T	12 x 22	190
300	200	150	Herm.	3/4	..	.....	Tecum.	.....	.....	.....	3	1	F22	1.1	T	12 x 22	205
350	200	150	Herm.	1	..	.....	Tecum.	.....	.....	.....	4	2	F22	.....	T	12 x 22	210
210	.....	.....	Herm.	1/2	1	1725	Tecum.	40	1250	.....	3	2	F12	1	.....	.....	115
300	50	25	Herm.	1/2	1	1725	Tecum.	40	1050	1/15	2	1	F12	1	T	12 x 20	175	
300	50	25	Herm.	3/4	2	1725	Tecum.	55	1050	1/15	3	2	F12	1.75	T	12 x 20	185	
210	50	25	Herm.	1/2	1	1725	Tecum.	40	1050	1/15	2	1	F12	1 1/4	T	12 x 20	175	
300	50	25	Herm.	3/4	2	1725	Tecum.	55	1050	1/15	3	2	F12	1 3/4	T	12 x 20	185	

Room Air Conditioners...

DEERING AIR CONDITIONING CO.

"Deering"



FRESH'ND-AIRE CO.

"Fresh'nd-Aire"

TYPHOON AIR CONDITIONING CO.

"Typhoon"



O. A. SUTTON CORP.

"Vornado"



LIPMAN DIV., YATES-AMERICAN

"Lipman"



MODEL NO.	PRO-VISION FOR HEATING	CABINET DIMENSIONS (in.)			COOLING CAPACITY (Btu/hr)	APPROX. AREA CONDITIONED (sq. ft.)	ELECTRICAL CHARACTERISTICS		
		Width	Height	Depth			Operating Current	Power Input	
CW-44-3	....	13	12	16**	4000	200	1/60/115	.....
CW-66-3	....	13	12	16**	6000	300	1/60/115	.....
CW-132-3	....	13	12	26**	12,000	600	1/60/115 1/60/230	.....
* Unit has two 1/2 hp compressors.									
** Inside room dimensions.									
A312	Yes	26 3/4	14 1/16	30 1/4	6250	300	115/230	.....
A334	Yes	26 3/4	14 1/16	30 1/4	9000	450	115/208/230	.....
A310	Yes	26 3/4	14 1/16	32 1/4	10,800	600	208/230	.....
* Surface area 440 sq. in.									
TG3A	....	25 1/2	15	19 1/4	3850	230	1/60/115	600	
TG5E	....	28 1/2	14 3/4	25 1/2	5500	300	1/60/115	850	
TG7D	....	28 1/2	14 3/4	30 3/4	8650	450	1/60/115 1/50-60/230	1250	
TG10A	....	28 1/2	14 3/4	30 3/4	10,500	550	1/50-60/230	1500	
50WAC	....	24 1/16	13 1/2	28 3/16	6000	300	60/115	.....
75WAC	....	26 1/2	13 3/4	33 3/4	8800	450	60/115 60/230	.....
L-53	....	29 1/2	16 3/4	29 1/4	6000	.....	1/60/115	.....
L-73	....	29 1/2	16 3/4	29 1/4	9000	.....	1/60/115 1/60/230	.....

	AIR CAPACITIES, (cfm)			COMPRESSOR						FAN MOTOR DATA		COIL DATA		REFRIGERANT		AIR FILTER		NET WT. (lb.)
	Circ.	Fresh	Exhaust	Type	HP	No. Cyl.	RPM	Make	Oil Chg.	RPM	HP	Cond. (rows)	Evap. (rows)	Type	Lb.	Type	Dim. (in.)	
	180	50	.....	Herm.	1/2	..	.....	Tecum.	....	1500	....	....	....	F12	.....	T	.....	135
	220	50	.....	Herm.	1/2	..	.....	Tecum.	....	1500	....	....	....	F12	.....	T	.....	140
	220 400	100	.....	Herm.	1*	..	.....	Tecum.	....	1500	....	....	....	F12	.....	T	.....	260
	260	.....	165	Herm.	1/2	1	1725	Tecum.	....	1350	1/20	2	1	F12	1	T	*	180
	290	.....	165	Herm.	3/4	1	1725	Tecum.	....	1350	1/20	3	2	F12	1.6	T	*	190
	300	.....	200	Herm.	1	1	1725	Tecum.	....	1350	1/8	4	3	F22	2	T	*	205
	165	.....	50	Herm.	1/2	1	.....	Tecum.	....	1100	1/12	..	..	F12	.....	C	.....	125
	220	50	.....	Herm.	1/2	1	.....	Tecum.	....	1100	1/12	..	..	F12	.....	C	.....	160
	310	80	100	Herm.	3/4	2	.....	Tecum.	....	1080	1/10	..	2	F12	.....	C	.....	200
	310	80	100	Herm.	1	2	.....	Tecum.	....	1080	1/10	..	2	F22	.....	C	.....	210
	200	0-80	0-90	Herm.	1/2	1	1750	Tecum.	40	1500	1/12	3	3	F12	.91	C	11 7/8 x 11	141
	300	0-210	0-210	Herm.	3/4	2	1750	Tecum.	55	1500	1/18 1/20	3	3	F12	1.15	C	21 3/4 x 9	197
	200	.....	125	Herm.	1/2	..	.....	.....	.....	.....	1/40	4	..	F12	.....	C	12 x 20 x 1	225
	295	.....	125	Herm.	3/4	..	.....	.....	.....	.....	1/40	4	..	F12	.....	C	12 x 20 x 1	235

Room Air Conditioners...

QUIET HEET MFG. CORP. "Quiet Kool"



MAGIC CHEF, INC. "Magic Chef"



KAUFFMAN AIR CONDITIONING CO. "Kauffman"

TELE KING CORP. "Weatherking"



ED FRIEDRICH, INC. "FloatingAir"

MODEL NO.	PRO-VISION FOR HEATING	CABINET DIMENSIONS (in.)			COOLING CAPACITY (Btu/hr)	APPROX. AREA CONDITIONED (sq. ft.)	ELECTRICAL CHARACTERISTICS		
		Width	Height	Depth			Operating Current	Power Input	
63-A	....	25½	15	19¼	4100	300	.....	600	
65-E	....	28½	14¾	25½	5850	300	.....	850	
67-D	....	28½	14¾	30¾	8650	450	.....	1250	
610-A	....	28½	14¾	30¾	10,500	550	.....	1500	
RC-503	No	27	16¼	28½	6000	300	1/60/115	.....
RC-753	No	28	16¼	28½	9000	450	1/60/115 1/60/220	.....
RC-103	No	26	16¼	36¼	12,000	580	1/60/230	.....
Y	....	27	14	30	6000	.....	50/60/115	850	
X	....	27	14	30	9000	.....	50/60/115 50/60/220	1100	
J	....	27	14	30	11,500	.....	50/60/220 50/60/208	1300	
.....	No	26¾	13	26¾	6350	300	1/50-60/115 1/50-60/230	1050	
.....	Yes*	26¾	15¼	26¾	8600	400	1/50-60/115 1/50-60/115	1120	
* Heat, 1300 watts, 4400 btu.									
W751S	....	26¾	15¼	31¾	9250	.....	115/230	.....
W1002S	....	26¾	15½	31½	12,550	.....	230	.....
* Ounces									

	AIR CAPACITIES (cfm)			COMPRESSOR						FAN MOTOR DATA		COIL DATA		REFRIGERANT		AIR FILTER		NET WT. (lb.)
	Circ.	Fresh	Exhaust	Type	HP	No. Cyl.	RPM	Make	Oil Chg.	RPM	HP	Cond. (rows)	Evap. (rows)	Type	Lb.	Type	Dim. (in.)	
	165	.....	50	Herm.	1/3	..	.....	Tecum.	....	1100	....	..	..	F12	.....	C	.....	125
	220	50	.....	Herm.	1/2	..	.....	Tecum.	....	1100	1/12	..	..	F12	.....	C	.....	160
	310	80	100	Herm.	3/4	..	.....	Tecum.	....	1080	1/10	..	..	F12	.....	C	.....	200
	310	80	100	Herm.	1	..	.....	Tecum.	....	1080	1/10	..	..	F12	.....	C	.....	210
	300	.....	.....	Herm.	1/2	2	1750	Tecum.	....	.....	1/20 1/40	3	2	F12	....	T	(2) 9 x 14 x 1/2	.....
	300	.....	.....	Herm.	3/4	2	1750	Tecum.	....	.....	1/20 1/40	3	2	F12	....	T	(2) 9 x 14 x 1/2	.....
	400	.....	.....	Herm.	1	2	1750	Tecum.	....	800-1050	1/4	3	2	F22	....	T	7 1/2 x 22 x 1/2	.....
	200	180	180	Herm.	1/2	..	.....	Tecum.	....	.....	1/4	..	..	F12	....	..	6 x 22	190
	300	220	220	Herm.	3/4	..	.....	Tecum.	....	.....	1/4	..	..	F12	....	..	8 x 22	235
	320	230	230	Herm.	1	..	.....	Tecum.	....	.....	1/4	..	..	F12	....	..	8 x 22	240
	.....	.....	.....	Herm.	1/2	..	.....	.....	....	1550	.....	..	..	F12	.....	.....	.....	220
	.....	.....	.....	Herm.	3/4	..	.....	.....	....	1550	.....	..	..	F12	.....	.....	.....	230
	365	250	60	Herm.	3/4	2	1725	Tecum.	....	1140	1/4	2	2	F12	21"	C	8 7/8 x 20 1/2 x 1/2	226
	365	250	60	Herm.	1	2	1725	Tecum.	....	1140	1/4	3	3	F22	28"	C	8 7/8 x 20 3/4 x 1/2	236

Room Air Conditioners...

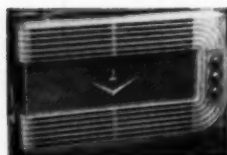
WORTHINGTON CORP.

"Worthington"



VIKING AIR COND. CORP.

"Viking"



JORDON SALES CO.

"Jordan"



HUNTER FAN & VENTILATING CO.

"Hunter"



VICTOR PRODUCTS CORP.

"Victor"



ARTKRAFT MFG. CO.

"Cooler-Aire"

MODEL NO.	PRO-VISION FOR HEATING	CABINET DIMENSIONS (in.)			COOLING CAPACITY (Btu/hr)	APPROX. AREA CONDITIONED (sq. ft.)	ELECTRICAL CHARACTERISTICS		
		Width	Height	Depth			Operating Current	Power Input	
SW-93	....	27	14½	15¼	.....	.....	.....	.....
SW-123	....	27	14½	15¼	.....	.....	.....	.....
340 * Ounces	....	27¾	14½	29½	8650	300-500	1/60/110	1200	
.....	No	27¾	15½	11½	.....	450	1/50-60/115	1250	
UC-75	....	26½	16½	29½	9100	485	60/115/230	.....
RC-75	No	27	16¾	31¼	8150	500	1/60/115	.....
CA-60	....	13	14	8	6100	325	60/110/115	1150	

	AIR CAPACITIES (cfm)			COMPRESSOR						FAN MOTOR DATA		COIL DATA		REFRIGERANT		AIR FILTER		NET WT. (lb.)
	Circ.	Fresh	Exhaust	Type	HP	No. Cyl.	RPM	Make	Oil Chg.	RPM	HP	Cond. (rows)	Evap. (rows)	Type	Lb.	Type	Dim. (in.)	
	.....	.....	.....	Herm.	3/4	..	.....	Serv.	.....	.....	.....	..	..	F12	.....	C	.....	198
	.....	.....	.....	Herm.	1	..	.....	Serv.	.....	.....	.....	..	..	F12	.....	C	.....	205
	80	80	100	Herm.	3/4	2	1725	Tecum.	.....	.....	1/10	3	2	F12	22*	P	9 3/8 x 23	220
	300	.....	75	Herm.	3/4	..	1725	Tecum.	.....	.....	1/15	..	..	F12	.....	T	10 x 23 x 1/2	200
	300	50	50	Herm.	3/4	..	.....	Tecum.	.....	1050	1/15	.....	.....	F12	.....	T	12 x 20	185
	315	50	160	Herm.	3/4	..	1750	Tecum.	55	1550	.....	3	2	F12	2.7	T	12 x 17 x 1/2	153
	210	.....	.....	Herm.	1/2	1	1725	Tecum.	40	1250	.....	3	2	F12	1	.....	.....	115

Store Air Conditioners ...

AIRTEMP DIV. "Airtemp"



AUTOMATIC FIRING CORP. "Cool-A-Matic"

BAKERAIRE CORP. "Bakeraire"



BRUNNER MFG. CO. "Brunner"



MODEL NO.	PRO-VISION FOR HEATING	CABINET DIMENSIONS (in.)			COMPRESSOR					
		Width	Height	Depth	Type	No. Cyl.	Bore & Stroke (inches)	RPM	Make	
1002	Opt.	27 1/2	82 3/4 *	19 1/4	Herm.	3	1 7/8 x 1 1/2	1750	Own	
1003-1	Opt.	35	83 1/4 *	19 1/4	Herm.	3	1 7/8 x 1 1/2	1750	Own	
1005-1	Opt.	48 3/4	90 1/2 *	19 1/4	Herm.	5	1 7/8 x 1 1/2	1750	Own	
1008-1	Opt.	48 3/4	93 1/2 *	19 1/4	Herm.	5	1 7/8 x 1 1/2	1750	Own	
1011	Opt.	58	97 *	28	Herm.	5	1 7/8 x 1 1/8	3500	Own	
1015	Opt.	58	105 *	32	Herm.	5	1 7/8 x 1 1/2	3500	Own	
*With plenum										
CSC-300	.....	39 3/8	75 *	24 1/8	Semi Herm.	2	2 1/8 x 2	1725	Own	
CSC-500	Yes	39 3/8	75 *	24 1/8	Semi Herm.	4	2 x 2	1725	Own	
CSC-750	.....	39 3/8	75 *	24 1/8	Semi Herm.	4	2 3/8 x 2	1725	Own	
*Without plenum										
BAH-353	Yes	43	82	25	Herm.	2	2 1/8 x 1 1/8	1750	Serv.	
BAH-553	Yes	43	82	25	Herm.	4	2 1/8 x 1 1/2	1750	Serv.	
BAH-753	Yes	59	86	25	Herm.	4	2 1/8 x 2 1/2	1750	Serv.	
BAH-1053	Yes	82	86	25	Herm.	4	2 1/8 x 1 1/2	1750	Serv.	
BAC-20-1	Yes	35 1/4	76 1/8	25 3/4	Open	2	2 1/2 x 1 3/4	850	Own	
BAC-30-1	Yes	35 1/4	79 1/4	25 3/4	Open	2	3 1/4 x 2 1/4	510	Own	
BAC-50-1	Yes	44 3/4	87	26 3/8	Open	2	3 1/4 x 2 1/4	825	Own	
BAC-75-1	Yes	51 1/8	95 1/2	30 3/8	Open	4	3 1/4 x 2 1/4	620	Own	
BAC-100-1	Yes	57	99 1/2	30 3/8	Open	4	3 1/4 x 2 1/4	825	Own	
* Crated										

	COMPRESSOR MOTOR			BLOWER			BLOWER MOTOR		CONDENSER	EVAPORATOR COIL		REFRIGERANT		AIR FILTER				NET WT. (lb.)
	HP	RPM	Cooling Method	CFM	No.	RPM	No.	HP	Type	Face Area (sq. ft.)	No. Rows	Type	(lb.)	Type	No.	Dimension (inches)		
	2	1750	Refnt.	800*	1	850	1	1/4	Shell-Coil	2.73	2	F12	6	T	1	22 3/4 x 11 1/2	685	
	3	1750	Refnt.	1200*	1	960	1	1/2	Shell-Coil	3.21	3	F12	9	C	1	12 x 30 3/8	760	
	5	1750	Refnt.	2000*	2	780	1	1/2	Shell-Coil	5.30	3	F12	12	C	2	22 x 22	1000	
	5	1750	Refnt.	3000*	2	1120	1	1	Shell-Coil	5.30	3	F22	12	C	2	22 x 22	1180	
	10	3500	Refnt.	4000*	2	735	1	1 1/2	Shell-Coil	7.46	3	F22	19 1/2	C	4	18 x 25	1410	
	15	3500	Refnt.	6000*	2	725	1	2	Shell-Coil	12.07	3	F22	30	C	4	20 x 25	1680	
	3	1725	Refnt.	1500	1	650	1	1/2	Shell-Coil	3	4	F12	14	C	1	31 3/4 x 19 x 1	1040	
	5	1725	Refnt.	2000	1	700	1	1/2	Shell-Coil	4	4	F12	14	C	1	31 3/4 x 19 x 1	1075	
	7 1/2	1725	Refnt.	2800	2	750	1	3/4	Shell-Coil	5.64	5	F12	18	C	1	32 3/4 x 24 x 1	1100	
	3	1750	Refnt.	1200	1	705	1	1/2	Shell-Coil	2.77	5	F12	12	C	2	16 x 20 x 1	.....
	5	1750	Refnt.	2000	1	700	1	1/2	Spherical Shell-Coil	4.12	5	F12	11	C	2	16 x 20 x 1	.....
	7 1/2	1750	Refnt.	3000	2	720	1	3/4	Spherical Shell-Coil	6.16	5	F22	20	C	2	20 x 25 x 1	.....
	(2) 5	1750	Refnt.	4000	2	700	1	1	(2) Spherical Shell-Coil	8.24	5	F12	22	C	4	16 x 20 x 1	.....
	2	1750	Air	800	1	.....	1	1/4	Shell-U Tube	1.8	5	F12	7	C	2	12 1/2 x 12 1/2 x 1	940*
	3	1750	Air	1200	1	.....	1	1/4	Shell-U Tube	2.7	5	F12	11	C	2	14 x 15 3/4 x 1	960*
	5	1750	Air	2000	1	.....	1	1/2	Shell-U Tube	4.4	5	F12	13	C	2	20 x 20 x 1	1248*
	7 1/2	1750	Air	3000	2	.....	2	1/4	Shell-U Tube	6.7	5	F12	16	C	2	20 1/2 x 26 1/2 x 1	1910*
	10	1750	Air	4000	2	.....	2	1/2	Shell-U Tube	9	5	F12	20	C	2	23 1/2 x 29 1/2 x 1	2060*

Store Air Conditioners...

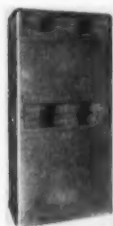
BRYANT HEATER DIV. "Bryant"



CARRIER CORP. "Weathermaker"



CURTIS REFRIG. MACHINE DIV. "Curtis"



FRICK CO. "Frick"



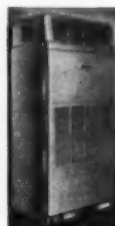
MODEL NO.	PRO-VISION FOR HEATING	CABINET DIMENSIONS (in.)			COMPRESSOR					
		Width	Height	Depth	Type	No. Cyl.	Bore & Stroke (inches)	RPM	Make	
2-590	Opt.	25	63	28	Herm.	2	1 3/4 x 1.2	1725	Tecum.	
3-590	Opt.	27	63	28	Herm.	2	1 1/8 x 1.2	1725	Tecum.	
5-590	Opt.	33	68	28	Herm.	2	2 1/2 x 1 1/8	1750	Cope	
* Crated										
50-K-2	Opt.	36	50	21	Acces. Herm.	2	2 x 1 1/4	1750	Own	
50-K-4	Opt.	41	80 3/8	22 3/8	Acces. Herm.	4	1 1/8 x 1 1/4	1750	Own	
50-K-6	Opt.	41	90 3/8	22 3/8	Acces. Herm.	4	1 1/8 x 1 1/4	1750	Own	
50-K-8	Opt.	48	102	30 1/8	Acces. Herm.	2	2 1/2 x 1 3/32	1750	Own	
50-K-12	Opt.	82	90 3/8	22 3/8	Acces. Herm.	8	1 1/8 x 1 1/4	1750	Own	
50-K-16	Opt.	82	107 1/8	30 1/8	Acces. Herm.	4	2 1/2 x 1 3/32	1750	Own	
250-PA	Yes	35 1/4	76	22 3/8	Open	2	2 1/8 x 2 1/4	835	Own	
400-PA	Yes	35 1/4	76	22 3/8	Open	2	3 x 2 1/4	665	Own	
600-PA	Yes	42 3/8	86 3/4	24 1/2	Open	2	3 x 2 1/4	1040	Own	
800-PA	Yes	46 3/8	97 3/8	27 3/4	Open	2	3 1/2 x 3 1/2	660	Own	
FWH-1000-CTAC	Yes	69	69 3/8	30	Open	4	3 x 3 3/4	590	Own	
FWH-1500-CTAC	Yes	81	76	31 1/2	Open	4	3 1/2 x 3 3/4	635	Own	
520	Yes	42	86 3/8	27 3/8	Herm.	2	2 1/2 x 1 1/8	1750	Cope	
750	Yes	42	90 3/8	27 3/8	Herm.	3	2 3/8 x 2	1750	Cope	
* Total surface area										

COMPRESSOR MOTOR			BLOWER			BLOWER MOTOR		CONDENSER	EVAPORATOR COIL		REFRIGERANT		AIR FILTER			NET WT. (lb.)
HP	RPM	Cooling Method	CFM	No.	RPM	No.	HP	Type	Face Area (sq. ft.)	No. Rows	Type	(lb.)	Type	No.	Dimension (inches)	
2	1725	Refnt.	800	1	600	1	1/8	Shell-Coil	1.6	4	F22	4	T	1	1 x 14 x 20	580*
3	1725	Refnt.	1200	1	600	1	1/8	Shell-Coil	2.4	4	F22	6	T	1	1 x 20 x 25	610*
5	1750	Water	2000	1	650	1	3/8	Shell-Coil	4	4	F12	10 1/2	T	2	1 x 16 x 20	1000*
2	1750	Refnt.	1000	1	.....	1	1/8	Shell-Coil	3.56	..	F12	5	T	1	16 x 30	575
3	1750	Refnt.	1500	1	.....	1	1/8	Shell-Coil	4.62	..	F12	7	T	2	20 x 20	750
5	1750	Refnt.	2500	1	.....	1	1/2	Shell-Coil	5.9	..	F22	12.5	T	2	20 x 25	950
7 1/2	1750	Refnt.	3750	1	.....	1	1	Shell-Coil	9.11	..	F22	14.5	T	4	(2) 16 x 20 (2) 16 x 25	1450
(2) 5	1750	Refnt.	5000	2	.....	1	2	(2) Shell-Coil	12.4	..	F22	25	T	4	20 x 25	1800
(2) 7 1/2	1750	Refnt.	7500	2	.....	1	3	(2) Shell-Coil	18.71	..	F22	29	T	8	(4) 16 x 20 (4) 20 x 20	2700
2	1750	Air	800	1	560	1	1/8	Shell-Coil	2.06	4	F12	13	C	1	16 x 25 x 1	910
3	1750	Air	1200	1	650	1	1/8	Shell-Coil	3.02	4	F12	15	C	1	20 x 25 x 1	1010
5	1750	Air	2000	1	560	1	1/2	Shell-Coil	4.80	4	F12	18	C	1	21 x 33 1/2 x 1	1375
7 1/2	1750	Air	3000	1	618	1	3/8	Shell-Coil	6.60	4	F12	18	C	2	20 x 25 x 1	1750
10	1750	Air	4000	2	772	1	3/8	Shell-Tube	8.01	4	F12	40	C	2	19 3/4 x 24 3/4 x 1 1/2	2470
15	1750	Air	6000	3	772	1	1	Shell-Tube	11.7	4	F12	45	C	3	19 3/4 x 24 3/4 x 1 1/2	2840
5	1750	Water	2000	1	538-732	1	1/2	Shell-Coil	475 *	4	F12	18	C	1	25 x 30 x 1	1250
7 1/2	1750	Water	2700	1	605-822	1	3/8	Shell-Coil	862 *	5	F12	28	C	1	25 x 35 x 1	1440

Store Air Conditioners...

FRIGIDAIRE DIV.

"Frigidaire"



GENERAL ELECTRIC CO.

"G-E"



NEVINGER MFG. CO.

"Nevinger"



UNITED COND. CORP.

"Clime-Matic"



MODEL NO.	PRO. VISION FOR HEATING	CABINET DIMENSIONS (in.)			COMPRESSOR					
		Width	Height	Depth	Type	No. Cyl.	Bore & Stroke (inches)	RPM	Make	
A50-300	Yes	40	81	22 1/8	Sealed	2	.....	1725	Own	
A50-500	Yes	40	86 3/8	28	Sealed	2	.....	1725	Own	
A50-750	Yes	40	86 3/8	28	Sealed	3	.....	1725	Own	
FD-30-G	Yes	34	82 1/4	21 1/8	Herm.	3	.....	1725	Own	
FD-50-G	Yes	45	82 1/2	21 1/8	Herm.	3	.....	1725	Own	
FD-75-E	—	45	89 1/4	29 3/4	Open	4	2 1/2 x 3 1/2	700	Own	
SCL-24W	Yes	37 1/2	72	23	Semi Herm.	2	2 1/8 x 1 1/8	1725	Serv.	
SCH-36W	Yes	37	86	23	Semi Herm.	2	2 1/8 x 1 1/8	1725	Serv.	
SCH-60W	Yes	46	88	23	Semi Herm.	4	2 1/8 x 1 1/2	1725	Serv.	
SCH-90W	Yes	48	96	28 1/2	Semi Herm.	3	2 3/8 x 2	1725	Cope	
SCH-120W	Yes	65 1/2	100	29 1/2	Semi Herm.	2	2 1/8 x 1 1/2	1725	Serv.	
SCH-180W	Yes	82	108	29 3/8	Semi Herm.	3	2 3/8 x 2	1725	Cope	
SC-200	.....	30	66 1/4	24	Acces. Herm.	2	.....	.....	Cope.	
SC-265	.....	30	66 1/4	24	Acces. Herm.	2	.....	.....	Cope.	
SC-350	.....	35	80	26	Acces. Herm.	2	.....	.....	Cope.	
SC-550	.....	43	80	26	Acces. Herm.	2	.....	.....	Cope.	
SC-825	.....	52	80	28 1/2	Acces. Herm.	3	.....	.....	Cope.	
SC-1100	.....	63 3/8	80 3/4	29 1/2	Acces. Herm.	(2) 2	.....	.....	Cope.	
SC-1650	.....	69 3/8	86	31 1/4	Acces. Herm.	(2) 3	.....	.....	Cope.	

*Shipping weight

	COMPRESSOR MOTOR			BLOWER			BLOWER MOTOR		CONDENSER	EVAPORATOR COIL		REFRIGERANT		AIR FILTER			NET WT. (lb.)
	HP	RPM	Cooling Method	CFM	No.	RPM	No.	HP	Type	Face Area (sq. ft.)	No. Rows	Type	(lb.)	Type	No.	Dimension (inches)	
	3	1725	Water	1230	1	750	1	1/3	Shell-Coil	2.84	4	F12	9 1/2	C	1	30 1/4 x 15 1/2 x 1	693
	5	1725	Water	2000	1	775	1	3/4	Shell-Coil	4.24	4	F12	10 1/2	C	1	30 1/4 x 22 1/4 x 1	950
	7 1/2	1725	Water	2700	1	1000	1	3/4	Shell-Coil	5.98	5	F12	16	C	1	29 3/4 x 29 3/4 x 1	1134
	3	1725	Refnt.	1200	1	.....	1	1/4	Shell-Coil	2.95	3	F12	11	T	2	16 x 20 x 1	581
	5	1725	Refnt.	2000	2	.....	1	1/2	Shell-Coil	5.13	3	F12	11	T	2	20 x 25 x 1	697
	7 1/2	1725	Air	3000	2	.....	1	3/4	Shell-Coil	7.55	4	F12	15	T	4	(2) 16 x 20 x 1 (2) 16 x 25 x 1	1099
	2	1725	Refnt.	800	1	800	1	1/4	Shell-Coil	1.66	4	F12	8	T	1	10 x 30	800
	2	1725	Refnt.	1200	1	705	1	1/3	Shell-Coil	2.6	5	F12	12	T	2	16 x 15	1000
	5	1725	Refnt.	2000	1	580	1	1/2	Shell-Coil	4	5	F12	15	T	2	16 x 20	1125
	7 1/2	1725	Water	3000	1	500	1	3/4	Shell-Coil	5.7	5	F12	20	T	2	20 x 20	1600
	(2) 5	1725	Refnt.	4000	2	580	1	1	Shell-Tube	7.58	5	F12	15	T	3	20 x 20	2400
	(2) 7 1/2	1725	Water	6000	2	500	1	2	Shell-Tube	11.9	5	F12	20	T	4	(1) 16 x 25 (3) 20 x 25	3000 3000
	2	.....	.....	800	1	.....	1	1/4	Shell-Coil	2.23	3	F12	12	T	1	16 x 25 x 1	700*
	2	.....	.....	1000	1	.....	1	1/4	Shell-Coil	2.23	5	F12	12	T	1	16 x 25 x 1	750*
	3	.....	.....	1200	1	.....	1	1/3	Shell-Coil	3.11	4	F12	12	T	2	16 x 25 x 1	900*
	5	.....	.....	2000	1	.....	1	1/2	Shell-Coil	4.47	4	F12	15	T	2	20 x 20 x 1	1050*
	7 1/2	.....	.....	3000	1	.....	1	3/4	Shell-Coil	6.82	4	F12	18	T	3	16 x 25 x 1	1500*
	(2) 5	.....	.....	4000	2	.....	2	1	Shell-Coil	8.94	4	F12	(2) 15	T	4	16 x 25 x 1	2100*
	(2) 7 1/2	.....	.....	6000	2	.....	2	1 1/2	Shell-Coil	13.64	4	F12	(2) 18	T	6	20 x 20 x 1	2500*

Store Air Conditioners...

WESTINGHOUSE, STURTEVANT DIV. "Unitaire"



WORTHINGTON CORP. "Worthington"



LIPMAN DIV., YATES-AMERICAN "Lipman"



UNITED STATES AIR COND. CORP. "usAIRco"

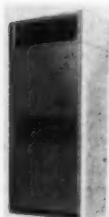


MODEL NO.	PRO- VISION FOR HEATING	CABINET DIMENSIONS (in.)			COMPRESSOR					
		Width	Height	Depth	Type	No. Cyl.	Bore & Stroke (inches)	RPM	Make	
SU-21	.....	36	68 $\frac{3}{4}$	22 $\frac{1}{2}$	Acces. Herm.	2	1 $\frac{3}{16}$ x 2 $\frac{1}{8}$	1150	Own	
SU-31	.....	36	68 $\frac{3}{4}$	22 $\frac{1}{2}$	Acces. Herm.	2	1 $\frac{3}{16}$ x 2 $\frac{1}{8}$	1750	Own	
SU-51	.....	44	77 $\frac{1}{16}$	22 $\frac{1}{2}$	Acces. Herm.	2	2 $\frac{3}{8}$ x 2 $\frac{1}{8}$	1750	Own	
SU-81	.....	51	85	25 $\frac{1}{2}$	Acces. Herm.	3	2 $\frac{3}{8}$ x 2 $\frac{1}{8}$	1750	Own	
MU-101	.....	60 $\frac{7}{8}$	91	31 $\frac{1}{8}$	Acces. Herm.	2	2 $\frac{3}{8}$ x 2 $\frac{1}{8}$	1750	Own	
MU-151	.....	76	91	32	Acces. Herm.	3	2 $\frac{3}{8}$ x 2 $\frac{1}{8}$	1750	Own	
SCY-350	Yes	37	83	20	Herm.	2	2 $\frac{1}{4}$ x 1 $\frac{1}{2}$	1750	Own	
SCY-550	Yes	48	90	22	Herm.	3	2 $\frac{1}{4}$ x 1 $\frac{3}{4}$	1750	Own	
SCY-750	Yes	48	95	22	Herm.	3	2 $\frac{1}{4}$ x 1 $\frac{3}{4}$	1750	Own	
SCY-1050	Yes	82 $\frac{1}{4}$	96 $\frac{1}{16}$	31	(2) Herm.	3	2 $\frac{1}{4}$ x 1 $\frac{3}{4}$	1750	Own	
SCY-1550	Yes	82 $\frac{1}{4}$	96 $\frac{1}{16}$	31	(2) Herm.	3	2 $\frac{1}{4}$ x 1 $\frac{3}{4}$	1750	Own	
*Each circuit										
LH-200	.....	36	64 $\frac{1}{2}$	21	Herm.	2	2 x 1 $\frac{1}{32}$	.....	Cope.	
LH-300	.....	36	64 $\frac{1}{2}$	21	Herm.	2	2 $\frac{1}{4}$ x 1 $\frac{1}{16}$	.....	Cope.	
LH-500	.....	46	74 $\frac{1}{2}$	29	Herm.	2	2 $\frac{1}{2}$ x 1 $\frac{1}{16}$	.....	Cope.	
L-750	.....	46	88 $\frac{1}{4}$	23 $\frac{1}{2}$	Herm.	3	2 $\frac{3}{8}$ x 2	.....	Cope.	
7720-E	Yes	38	75"	20 $\frac{1}{2}$	Acces. Herm.	2	2 x 1 $\frac{1}{32}$	1750	Cope.	
7730-E	Yes	38	75"	20 $\frac{1}{2}$	Acces. Herm.	2	2 $\frac{1}{8}$ x 1 $\frac{1}{2}$ 2 $\frac{1}{4}$ x 1 $\frac{1}{16}$	1750	Serv. Cope.	
7750-E	Yes	44 $\frac{1}{8}$	83"	22 $\frac{1}{8}$	Acces. Herm.	4 2	2 $\frac{1}{8}$ x 1 $\frac{1}{4}$ 2 $\frac{1}{2}$ x 1 $\frac{1}{16}$	1750	Serv. Cope.	
7775-E	Yes	48 $\frac{1}{8}$	93"	26 $\frac{1}{8}$	Acces. Herm.	3	2 $\frac{3}{8}$ x 2	1750	Cope.	
77100-E	Yes	62	93"	27	Acces. Herm.	4 2	2 $\frac{1}{8}$ x 1 $\frac{1}{4}$ 2 $\frac{1}{2}$ x 1 $\frac{1}{16}$	1750	Serv. Cope.	
*With Plenum										

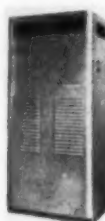
	COMPRESSOR MOTOR			BLOWER			BLOWER MOTOR		CONDENSER	EVAPORATOR COIL		REFRIGERANT		AIR FILTER			NET WT. (lb.)
	HP ₁	RPM	Cooling Method	CFM	No.	RPM	No.	HP		Face Area (sq. ft.)	No. Rows	Type	(lb.)	Type	No.	Dimension (inches)	
	2	1150	Refnt.	800	1	685	1	1/3	Shell-Coil	1.7	3	F12	8 1/2	T	2	20 x 15 x 1	870
	3	1750	Refnt.	1200	1	750	1	1/3	Shell-Coil	2.4	3	F12	8 1/2	T	2	20 x 15 x 1	890
	5	1750	Refnt.	2000	2	850	1	1/2	Shell-Tube	3.7	3	F12	13	T	2	27 x 19 x 1	1140
	7 1/2	1750	Refnt.	3200	2	950	1	3/4	Shell-Tube	5.95	3	F12	11	T	4	(2) 20 x 16 x 1 (2) 25 x 16 x 1	1450
	(2) 5	1750	Refnt.	4000	2	820	1	2	Shell-Tube	8.9	4	F12	24	T	4	20 x 25 x 2	2015
	(2) 7 1/2	1750	Refnt.	6000	2	630	1	3	Shell-Tube	12.2	4	F12	28	T	6	(2) 20 x 25 x 2 (2) 15 x 20 x 2	2400
	3	1750	Refnt.	1200	1	720	1	1/3	Shell-Coil	3.80	3	F12	12	T	2	15 x 20 x 1	840
	5	1750	Refnt.	2000	1	600	1	1/2	Shell-Coil	5.75	3	F12	13	T	2	20 x 25 x 1	1040
	7 1/2	1750	Refnt.	2700	1	950	1	3/4	Shell-Coil	5.75	4	F22	13	T	2	20 x 25 x 1	1125
	(2) 5	1750	Refnt.	2000	2	840	1	1 1/2	Shell-Coil	13	4	F12	14*	T	4	20 x 25 x 1	2300
	(2) 7 1/2	1750	Refnt.	3000	2	760	1	2	Shell-Coil	13	4	F22	14*	T	4	20 x 25 x 1	2400
	2	.....	Water	800	1	.....	1	1/3	Cleanable	2.66	3	F12	4	T	1	16 x 25	540
	3	.....	Water	1200	1	.....	1	1/3	Cleanable	2.66	4	F12	5	T	1	16 x 25	585
	5	.....	Water	2000	1	.....	1	3/4	Cleanable	3.39	5	F12	8	T	1	25 x 25	.....
	7 1/2	.....	Water	2700	1	.....	1	3/4	Cleanable	4.5	5	F12	11	C	2	20 x 20	1500
	2	1750	Water	800	1	833	1	1/4	Shell-Coil	2.09	4	F12	5	T	1	16 x 25 x 1	800
	3	1750	Water	1200	1	747	1	1/3	Shell-Coil	3.12	4	F12	7	T	1	16 x 25 x 1	900
	5	1750	Water	2000	1	833	1	1/2	Shell-Coil	4.5	4	F12	11	T	2	16 x 20 x 1	960
	7 1/2	1750	Water	3000	2	890	1	3/4	Shell-Coil	6.7	4	F12	17	T	2	20 x 20 x 1 20 x 25 x 1	1375
	(2) 5	1750	Water	4000	2	947	1	1	Shell-Coil	8.35	6	F12	39	T	3	20 x 25 x 1	1720

Store Air Conditioners ...

TRANE CO. "Trane"



TYPHOON AIR CONDITIONING CO. "Typhoon"



YORK CORP. "York", "Yorkaire"



MODEL NO.	PRO-VISION FOR HEATING	CABINET DIMENSIONS (in.)			COMPRESSOR				
		Width	Height	Depth	Type	No. Cyl.	Bore & Stroke (inches)	RPM	Make
32-SC	Yes	37 1/4	83 1/8	21 1/8	Acces. Herm.	2	2 1/4 x 1 7/8	1750	Cope.
52-SC	Yes	45 1/4	84 1/8	25 1/8	Acces. Herm.	2	2 1/2 x 1 13/16	1750	Cope.
71-SC	Yes	59 3/4	86 1/8	29 1/8	Acces. Herm.	3	2 3/8 x 2	1750	Cope.
102-SCW	Opt.	66	62 1/8	35 1/4	Open	4	2 1/2 x 2	1750	Own
102-SCE	Opt.	109 1/4	62 1/8	35 1/4	Open	4	2 1/2 x 2	1750	Own
152-SCW	Opt.	71 1/4	68 1/8	37 3/4	Open	6	2 1/2 x 2	1750	Own
152-SCE	Opt.	117 1/4	68 1/8	37 3/4	Open	6	2 1/2 x 2	1750	Own
202-SCW	Opt.	71 1/4	72 1/8	40 1/4	Open	8	2 1/2 x 2	1750	Own
202-SCE	Opt.	121 1/4	72 1/8	40 1/4	Open	8	2 1/2 x 2	1750	Own
21	.....	35 1/4	80 1/2 *	22 1/8	Open	2	2 1/2 x 3	330	Tecum.
31	.....	35 1/4	80 1/2 *	22 1/8	Open	2	2 1/2 x 3	400	Tecum.
41-SC	Opt.	35 1/4	80 1/2 *	22 1/8	Open	2	2 1/2 x 3	600	Tecum.
61-SC	Opt.	42	91 1/8 *	23 3/8	Open	3	2 1/2 x 3	628	Tecum.
81-SC	Opt.	42	91 1/8 *	23 3/8	Open	3	2 1/2 x 3	644	Tecum.
82-SC	Opt.	52	95 5/8 *	27	Open	3	3 1/4 x 3	630	Tecum.
111-SC	Opt.	52	95 5/8 *	27	Open	4	2 1/2 x 3	864	Tecum.
161-SC	Opt.	62	95 *	33	Open	3	4 x 4 1/4	570	Tecum.
211-SC	Opt.	62	95 *	33	Open	3	4 x 4 1/4	760	Tecum.
*With Plenum									
A-75-CM	*	37 3/8	27 1/8	19 3/4	Herm.	....	.....	.....	York
A-100-CM	*	37 3/8	27 1/8	19 3/4	Herm.	....	.....	.....	York
201	No	42 1/4	39 1/4	22 3/4	Herm.	....	.....	.....	York
352-B	Yes	32	82 3/8	23	Herm.	....	.....	.....	York
552-B	Yes	42	82 3/8	23	Herm.	....	.....	.....	York
751	Yes	42	95	23	Herm.	....	.....	.....	York
801-B	Yes	72 5/16	82 3/8	23	Herm.	....	.....	.....	York
1002	Yes	55	90 3/4	44	Herm.	....	.....	.....	York
1502	Yes	72	44	90 3/4	Herm.	....	.....	.....	York
*Provision for heating on Models AC75MR, A100CMR									

	COMPRESSOR MOTOR			BLOWER			BLOWER MOTOR		CONDENSER	EVAPORATOR COIL		REFRIGERANT		AIR FILTER			NET WT. (lb.)
	HP	RPM	Cooling Method	CFM	No.	RPM	No.	HP	Type	Face Area (sq. ft.)	No. Rows	Type	(lb.)	Type	No.	Dimension (inches)	
	3	1750	Refnt.	1200	1	784	1	1/4	Shell-Coil	2.72	4	F12	8	T	2	16 x 20 x 1	900
	5	1750	Refnt.	2000	1	708	1	1/2	Shell-Coil	4.50	4	F12	13	T	2	20 x 20 x 1	1150
	7 1/2	1750	Refnt.	3000	1	569	1	3/4	Shell-Coil	6.80	4	F12	20	T	3	16 x 25 x 1 (2) 20 x 25 x 1 (1)	1600
	10	1750	Air	4000	2	1110	1	1 1/2	Shell-Tube	6.67	5	F12	30	T	6	16 x 20 x 2	2800
	10	1750	Air	4000* 3500**	2 1	1110 958	1 1	1 1/2 1 1/2	Evap. Cond.	6.67	5	F12	45	T	6	16 x 20 x 2	3500
	15	1750	Air	6000	2	1000	1	2	Shell-Tube	10.0	5	F12	45	T	9	20 x 20 x 2	3000
	15	1750	Air	6000* 3800**	2 1	1000 787	1 1	2 1 1/2	Evap. Cond.	10.0	5	F12	85	T	9	20 x 20 x 2	4000
	20	1750	Air	8000	2	962	1	3	Shell-Tube	13.3	5	F12	60	T	12	16 x 20 x 2	3400
	20	1750	Air	8000* 6000**	2 1	962 701	1 1	3 2	Evap. Cond.	13.3	5	F12	98	T	12	16 x 20 x 2	4600
	1 1/2	1750	Air	600	1	500	1	1/4	Shell-Tube	140**	3	F12	6	T	1	20 x 25 x 1	680
	2	1750	Air	800	1	600	1	1/4	Shell-Tube	175**	3	F12	8	T	1	20 x 25 x 1	705
	3	1750	Air	1200	1	640	1	1/4	Shell-Tube	253**	3	F12	10	T	1	20 x 25 x 1	725
	5	1750	Air	1900	1	590	1	1/2	Shell-Tube	478**	5	F12	12	T	2	20 x 20 x 1	1070
	7 1/2	1750	Air	3000	1	620	1	1/2	Shell-Tube	665**	7	F12	15	T	2	20 x 20 x 1	1215
	7 1/2	1750	Air	3800	1	545	1	3/4	Shell-Tube	800**	5	F12	16	T	2	20 x 25 x 1	1300
	10	1750	Air	4000	1	590	1	3/4	Shell-Tube	960**	6	F12	18	T	2	20 x 25 x 1	1525
	15	1750	Air	6000	2	450	1	1 1/2	Shell-Tube	1590**	6	F12	32	T	6	20 x 20 x 1	2500
	20	1750	Air	8000	2	547	1	2		1860**	7	F12	38	T	6	20 x 20 x 1	3000
	**Total surface area																
	3/4	.....	.....	.....	..	.....	1	1/4	Shell-Tube	.....	..	F22	.....	T	1	10 1/2 x 12 x 1/2	225
	1	.....	.....	.....	..	.....	1	1/4	Shell-Tube	.....	..	F22	.....	T	1	10 1/2 x 12 x 1/2	245
	2-1	.....	.....	.....	..	.....	1	1/4	Shell-Tube	.....	..	F22	.....	T	2	12 x 19 x 3/4	420
	3	.....	.....	.....	..	.....	1	1/2	Shell-Tube	.....	..	F22	.....	T	2	.....	670
	5	.....	.....	.....	..	.....	1	1/2	Shell-Tube	.....	..	F22	.....	T	2	.....	910
	7 1/2	.....	.....	.....	..	.....	1	3/4	Shell-Coil	.....	..	F22	.....	T	2	.....	1225
	(1) 3 (1) 5	1	1	Shell-Coil	F22	T	2	1700
	(2) 5	1	1 1/2	Shell-Coil	F22	T	4	16 x 20 x 2	2055
	(2) 7 1/2	1	2	Shell-Coil	F22	T	6	16 x 20 x 2

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HARRY JESSEL JOINS GUSTAVE LARSON CO.

Appointment of Harry J. Jessel as vice president and director of sales of the Gustave A. Larson Co., Milwaukee, wholesalers of refrigeration, heating and air conditioning equipment in Wisconsin, Illinois and Iowa was announced recently by Gustave A. Larson, the firm's founder and president.

Jessel, a registered professional engineer, is a graduate of Marquette University and is a member of the American Society of Refrigerating Engineers. He has been connected with the industry in manufacturing, wholesaling and contracting for the past 15 years

CORNELL NEW PROMOTION MGR. OF STANDARD BRASS

G. D. (Don) Cornell has been appointed sales promotion manager for the air conditioning-refrigeration division of Standard Brass & Mfg. Co., according to Fred V. Wilson, general manager of the division. The company, a wholesaler of parts, supplies and equipment for refrigeration and air conditioning, has headquarters in Port Arthur, Tex., and branches in Houston and Beaumont, Tex., and New Orleans and Shreveport, La.

Cornell entered the field of refrigeration and air conditioning 15 years ago with Macklinburg Supply Co., of Oklahoma City. He joined Stand-

ard Brass 12 years ago at its Beaumont, Tex., branch, and later became manager of that branch. During the past two years, he has been branch manager at New Orleans.

NEW DOUBLE WEIGHT TUBE FOR LEAK LOCK

A new double-weight tube is now being used to package Leak Lock, the pipe joint compound especially developed for use in refrigeration sys-

tems by Highside Chemicals Co.

The new tube is twice as heavy as that formerly used. The greatly increased strength will help to prevent breakage of the tube when carried in a tool kit. It will also better withstand accidents such as those caused when tools are dropped into the kit. In addition, a change in the tube opening prevents the contents from oozing out after the tube is opened.

BUY FROM YOUR REFRIGERATION WHOLESALE



You don't have to wait until the moisture is picked up by a cartridge drier. Thawzone will travel through the system and pick up the moisture quickly.

Thawzone quickly reaches ALL the moisture . . . even if it is clinging to the pores of castings or tubing . . . or even if it is floating in the receiver.

Furthermore, Thawzone does a more complete job of eliminating moisture problems. Compare this patented liquid drier to any other product available:

YOUR PRESENT METHOD



THAWZONE



Can it act in all parts of the refrigerant within 2 minutes?

Can it destroy moisture instead of merely being a "sponge" or an antifreeze?

Is it an ordinary product or a patented invention?

Is it free of any effect whatsoever on pressures?

Is it free of any possibility of being clogged with oil?

Does it neutralize acids?

Does it cost only about 8c per lb. of refrigerant protected?

You can use Thawzone in practically any "Freon" or methyl unit. Your wholesaler has Thawzone. Phone him now. Highside Chemicals Co., 10 Colfax Ave., Clifton, N. J.

THAWZONE®
The Only Product That Destroys Water...
and Reaches All of it

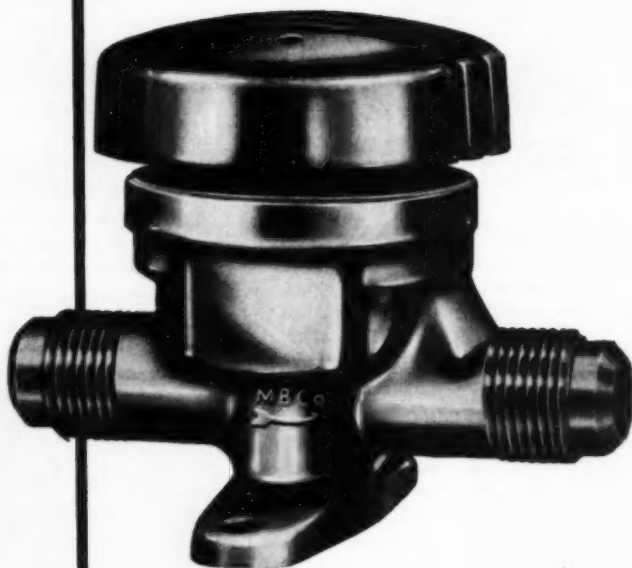
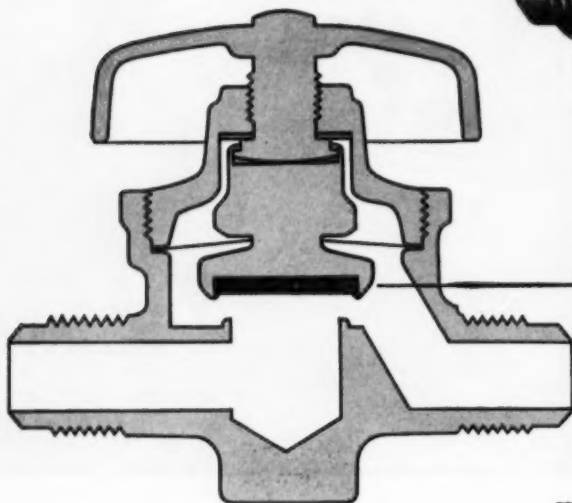


MUELLER BRASS CO.

PACKLESS LINE

VALVES

a fine valve you can
heartily recommend in any
commercial refrigeration
installation



tough, resilient molded
nylon stem disc insures
positive shut-off

Mueller Brass Co. STREAMLINE Packless Line Valves are the safe, economical and reliable forged brass valves that help increase the dependability of any commercial refrigeration system. Because of their durable construction they can take considerable punishment in difficult applications and still continue to give efficient, lasting service.

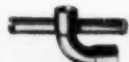
Good design and fine craftsmanship account for the splendid quality of these valves. The comfortable 2-1/2" diameter hand wheel provides good leverage for easy opening and closing. 1-1/2 turns of the hand wheel closes it. A neoprene back seal cushion prevents stem seizures and gives double protection against leakage. The nylon stem disc

withstands regular charging board usage and it is chemically inert to all standard low-pressure refrigerants. The disc is resilient and shuts off the flow easily and positively even when obstructions become lodged against it. Large metal diaphragms have been pressure-tested for 100,000 openings without a failure. A "Full-Flo" seat area and refrigerant passage virtually eliminates pressure drop.

STREAMLINE Packless Line Valves are sturdy and compact—only 3" high—with in-line ports for quick, easy installation. They are available in 1/4", 3/8", 1/2" and 5/8" sizes with flare or solder type end connections. Available from your refrigeration wholesaler.



DRIERS
AND
FILTERS



WROUGHT COPPER
FITTINGS AND
COPPER TUBING



FLARE
FITTINGS



LIQUID
INDICATORS



VALVES



STREAMLINE Packless Line Valves are individual and multiple packaged in sturdy metal-edge containers.



Write for our latest catalog describing the complete line of Mueller Brass Co. STREAMLINE refrigeration products.



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APRIL, 1953 • COMMERCIAL REFRIGERATION

NEWS OF THE INDUSTRY

PEOPLES ELECTED USAIRCO HEAD

United States Air Conditioning Corp. announces the election of a new president, Wesley J. Peoples, chairman of the Institute of Boiler and Radiator Manufacturers and former president and chair-



W. J. Peoples

man of the board of United States Radiator Corporation.

Peoples' election took place at a special meeting of the U. S. Air Conditioning board of directors, according to the announcement by Earl A. Darr, chairman.

Darr also announced that Peoples and associates would become "substantial stockholders" in the company.

The presidency of the company had been vacant since the death last October of the former president, Albert A. Feinberg.

WOLVERINE DALLAS OFFICES MOVED

Sales Offices of the Wolverine Tube Div. have been moved in Dallas from 309 Browder St., it was announced recently by C. T. Fuller, southwestern district sales manager for Wolverine Tube Div. of Calumet & Hecla, Inc. New address is 511 N. Ervay St., Dallas.

REMINGTON LOWERS PRICES \$10 TO \$40

An across-the-board cut of \$10 to \$40 in 1953 prices of Remington console room air conditioners, and a \$20 reduction in a ¾ h.p. window type model, as compared to last year, was announced by M. L. Judd, sales manager, Remington Corp.

He also announced the addition of a new console cabinet—the Windsor—in both dark and blonde mahogany.

The line of 10 basic console models now starts at \$599.50 retail, for the 1 h.p. Leader, and the 9 basic model window type line begins at \$229.95, Judd stated.

FIRE AT RECO'S VIRGINIA PLANT

The Emporia, Va., plant of Reco Products Div., Refrigeration Engineering Corp., was seriously damaged by fire on Feb. 20. Occurring shortly after second shift operations, the fire

caused damage estimated at between \$400,000 and \$500,000.

Reco officials already have begun negotiations for new facilities. The company makes pre-fabricated walk-ins and ice-making equipment.

IDEAL COOLER CORP. IN EXPANSION MOVE

Ideal Cooler Corp., St. Louis, manufacturers of bottle beverage and direct-draw draft beer coolers, has completed the first phase of a sizeable expansion program.

According to Louis Weiss, president, the company has made a sizeable capital outlay for new production equipment. The Ideal company has been growing steadily, showing better than a 50% sales increase for each of the past three years.

Several new models will be produced this season, although the company will continue to manufacture its eight-foot box that holds 56 cases of 12 ounce beverages.

JORDON EXECS "TALK UP" SALES PLANS



OFFICIALS OF JORDON Refrigerator Co., Philadelphia manufacturer of commercial refrigeration and upright home freezers, get together for an informal chat with Los Angeles and New York sales representatives during the firm's recent three-day national sales conference. Shown left to right, are Norman Rossin, Norman Rossin Co., Los Angeles; Frank Fogel, president of the Jordon company; Harry Fogel, Jordon vice president in charge of sales; and Joe Miller, Exclusive Export, New York.

AIR CONDITIONER STANDARD REVISED

A Proposed Standard on Methods of Rating and Testing Air Conditioners (16-53) which is a revision of Standard 16-R, bearing the same title, has just been released by American Society of Refrigerating Engineers.

This latest revision affects primarily the room air conditioner portion of the Standard and is for the purpose of providing alternate testing methods in addition to the calibrated room originally specified in Standard 16-R and to which some objections had been raised.

Included in the Standard are the cooling and the heating and other functions of self contained air conditioners, room air conditioners, remote type air conditioners, heat pumps, and oil and gas fired air conditioners.

The calibrated room calorimeter specified in the Standard is primarily intended for testing room air conditioners of the free delivery type. Since this apparatus does not require attachments to air inlets or outlets, it avoids the possibility of influencing the ratings, as might be the case where such attachments are applied to certain types of room air conditioners.

The Methods of Rating and Testing Forced Circulation and Natural Convection Air Coolers Standard has been revised to change the method of calculating the cooling capacity from a net total cooling effect to a gross total cooling effect. This publication is now known as Standard 25-53 and shortly will be available for distribution.

These Standards may be obtained from ASRE Headquarters, 40 W. 40th St., New York 18, N. Y.

CONFERENCE SET ON HOME CONDITIONING

Eight national organizations will join Lehigh University's department of mechanical engineering in sponsoring a two-day conference on trends in year-round residential air conditioning. Dr. James B. Hartman, head of the department, has announced. The sessions will be held April 24 and 25 in Packard Auditorium on the Lehigh University campus, Bethlehem, Pa.

The purpose of the conference is to explore areas in which research in air conditioning is now in progress or fields in which research and development are needed. Discussions by experts in the heating and ventilating fields will be of interest to the home owner, the builder, equipment manufacturers, and research groups.

James V. D. Eppes, associate professor of mechanical engineering at Lehigh, is chairman of the conference committee. Subjects to be discussed include trends in modern housing, reports on

current research, residential load calculation, operating cycles and equipment design, vapor problems, and university and research laboratory programs.

Organizations cooperating is sponsorship of this conference with Lehigh University are: American Society of Heating and Ventilating Engineers, American Society of Refrigerating Engineers, American Society of Mechanical Engineers, Air Conditioning and Refrigeration Machinery Association, National Association of Home Builders, Building Research Board, National Mineral Wool Association, National Warm Air Heating and Air Conditioning Association.

NEW ALCO MOVIE TELLS VALVE STORY

A new educational film which will contribute to the knowledge of refrigeration controls has been produced by Alco Valve Co., St. Louis.

This full-color movie, called "The Story of Auto-

matic Refrigeration Controls," take up many phases of the service job of the refrigeration and air conditioning engineers. It gives examples of how to choose the right valve; how to install valves (right and wrong); and how the various types of valves operate.

There are "inside views" of many valves . . . scenes that show details of actual installations . . . schematic drawings of refrigeration systems in action . . . and a review of how refrigeration affects the daily lives of everyone, at home or in the battlefield.

The film is being shown all over the nation by Alco wholesalers and Alco Valve Co. to RSES and other engineering societies, as well as to large contracting and service organizations. It is also being presented to engineering and trade schools in various localities.

Further information on this film may be obtained by writing Alco Valve Co., 865 Kingsland Avenue, St. Louis 5, Missouri.

TELE KING NAMES OHIO DISTRIBUTOR

Cussins & Fearn, Inc., has been appointed to carry Tele King Corp.'s line of new "Weather King" air conditioning equipment through its 40 home furnishing stores in the state of Ohio. Officers of the firm include Ray Wunderlick, president, and Carl Wunderlick, manager of the firm's retail outlets.

CARRIER SPONSORS "HOME" COMPETITION

A nation-wide architectural competition to obtain designs for homes planned around air conditioning and providing prizes totalling \$27,800 has been announced by Carrier Corp.

The contest—the Carrier Weathermaker Home Competition—will offer 31 prizes, including a national grand prize of \$5,000, plus six prizes of \$2,000 each distributed in three geographic regions, and eight additional prizes for each geographic region.

DOUBLE YOUR SAVINGS

in time and labor . . . with

the one-formula
**X-PANDO
PIPE-JOINT
COMPOUND**

**X-PANDO
CAUXEAL**

Contractors, Installation and Service Men in the refrigerant field; industry; government; the armed forces—all agree that X-Pando Pipe-Joint Compound is far superior to litharge and glycerine for freon, ammonia, brine and all refrigerant liquids and gases.

An X-Pando application costs less, goes much further, is less brittle and is easy to take apart. It ends leaks. It corrects thread imperfections; withstands deflection, vibration, and extreme temperature changes.

X-Pando is the recommended exclusive compound STANDARD in the refrigeration field. It is the ONLY compound that expands as its sets. You need only this ONE FORMULA for all jobs.

- that wonderful refrigerant Sealer that's applied like putty, but is better than putty. Always remains pliable — yet it seals indefinitely.
- Cauxeal is the perfect seal for ducts, conduits, air-conditioning units and innumerable other uses. It's simple, fast, economical, needing no special preparation. It's watertight, fume-proof, vermin-proof and acid-resistant. It sticks to anything!
- You can't waste Cauxeal. Simply put all excess Cauxeal back into the container for re-use at any time. Store it anywhere — it'll always remain "workable."

IF IT'S WORTH INSTALLING—IT'S WORTH SEALING RIGHT—WITH X-PANDO PIPE-JOINT COMPOUND AND CAUXEAL.

X-Pando Products are always sold on a Money-Back Guarantee! Available at your local Refrigeration Wholesaler or your Industrial Supply House. Nationally distributed by York Corporation through their authorized outlets.

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Manufacturers of Quality Industrial Products for over 25 Years
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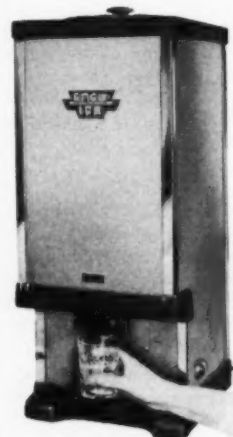
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Snow Ice in an instant!
The ideal automatic ice shaving machine for counter use. Suitable for Snow Balls and Snow Cones. Truly Snow Ice in an instant!

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Inquiries Invited.



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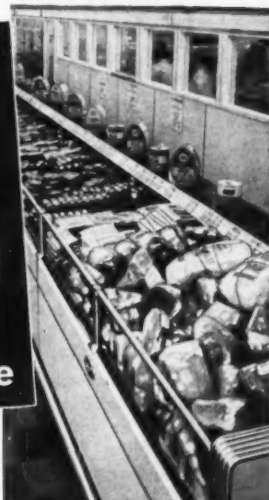
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APRIL, 1953 • COMMERCIAL REFRIGERATION

"WE MAKE IT!"

- THE RIGHT DISPLAY
- AT THE RIGHT PRICE
- FOR EVERY FOOD REFRIGERATION NEED

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the
complete line

ILLUSTRATED, SELF-SERVE FRESH MEAT, STANDARD LENGTH, EASILY ADAPTED TO CONTINUOUS.



We are experienced manufacturers of displays and refrigerators . . . for every food refrigeration need.

The FEDERAL LINE is a quality line . . . measuring up, in every detail, to highest standards. There are over 50 models, and our representatives invite your inquiries.

Representatives in all principal cities.

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MANUFACTURING CO.**
WAUKESHA, WISCONSIN

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INSTALL COMPLETE

Now you can figure complete jobs with Hirsh Pre-Bilt Shelving Equipment! The Hirsh Plan enables you to sell wall and gondola units that the merchant can assemble himself.

FOOD STORES

EASY TO INSTALL
FULLY ADJUSTABLE

HEAVY DUTY CONSTRUCTION
PROFITABLE FOR YOU



Write now for complete information—no obligation!

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and AIR CONDITIONING • APRIL, 1953

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8051 CENTRAL PARK AV., SKOKIE, ILL.
Chicago phone: Cornelia 7-4140 *CR

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Address _____

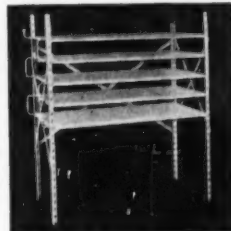
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Why continue taking shrinkage losses in your cold storage room — losses caused by forced air cooling? You can cut shrinkage losses to a minimum and protect the quality of your products by using DOLE refrigeration—the system that cools by *direct contact* and *natural* air circulation. For complete information ask for Catalog D-4.

DOLE

Quick Freeze Plates are available as stands which can be installed in any cooling room to provide faster freezing and preservation of your perishables.



DOLE REFRIGERATING CO.
5942 N. PULASKI ROAD, CHICAGO 30, ILL.
103 Park Avenue, New York 16

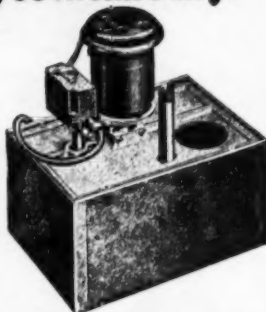
In Canada: Dole Refrigerating Products Limited
44 Elgin Street, Brantford, Ontario

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***DIPPING* eliminated... quickly, quietly, economically!**

Sutton
AUTOMATIC
CONDENSATE DISPOSAL
UNIT

**Pumps Up to
a 22-ft. Head!**



Specially designed for the disposal of water and other condensate liquids which collect in air conditioning equipment and similar apparatus. Completely self-contained. Unit is connected to apparatus so that liquid flows into inlet of receiving tank. At a predetermined height, pump starts automatically and delivers condensate to disposal point. Large capacity, high pumping head ideal for many other applications including draining of defrosting water from meat and dairy cases and similar equipment remote from sewer connection. Non-Automatic Condensate Disposal Unit, Automatic and Non-Automatic Pump Units only (less tank and check) also available.

SPECIFICATIONS

TANK Approx. 2½ gals. capacity with 3" inlet, ½" outlet. Stated with corrosion - resistant baked enamel finish.
PUMP All-brass centrifugal. Delivery approx. 2½ GPM at 10-ft. head to 1 GPM at 22-ft. head. Shut off at 24 ft.
MOTOR 1/15 HP, single phase, 60-cycle, 115-volt A.C. (110-volt D.C. on Special order)

CONTROL Automatic float switch set to pump approx. ¼ gal. of condensate at each operation. Check valve in outlet prevents liquid from draining back into tank.
OVERALL DIMENSIONS 8" wide, 7" deep, 12" long. Height to top of pump, 12". Weight approx. 20 lbs.

WRITE FOR LITERATURE AND PRICES

Sutton Manufacturing Corp.
112 W. WILSON AVENUE NORFOLK, VIRGINIA

FREEZ-RITE DAIRY PRODUCTS Display CABINET



**23 BIG
SALES
SHELVES**
For Extra Capacity
Extra Sales

- Bottom shelf holds 108 quarts of milk
- Refrigerated center shelf displays 64 pints or 8 lbs. of butter and cheese
- Non-refrigerated top shelf displays related items



MODEL GD-2956

Designed to S-E-L-L dairy products for BOTH super market or corner grocery. Brilliant fluorescent lighting floods all three levels. BIG full-view thermopane window. Wider, lower service opening. Time clock AUTOMATICALLY defrosts coils during early morning hours. Flowing and large capacity cooling coil eliminate spoilage LOSS due to faulty uneven temperature.

Now available in 79" length

FREEZ-RITE DIVISION BAILEY & PERKINS COMPANY
44464 Van Dyke Ave. Utica, Mich.

SEND FREE CATALOGUE TO HELP ME MAKE DECISION

Name _____ Firm Name _____
Street _____ City _____ State _____

Circle No. 49 on Reader Service Card

MUELLER OPENS NEW ATLANTA WAREHOUSE

F. L. Riggins, Sr., president of Mueller Brass Co., has announced the completion of the company's new Atlanta sales office and warehouse located at 187 Milton Ave. in that city. The new brick structure, which will go into operation about March 1, has a floor area of 20,000 sq. ft. with air-conditioned offices.

Mueller Brass has maintained a sales office in Atlanta since 1934 and a warehouse since 1938. The new sales and warehouse facilities will serve customers in North and South Carolina, Georgia, Florida, Tennessee, Alabama and Mississippi.

over 650 feet long. A railroad siding will border the length of the building to allow direct loading and unloading. Room will be available for future expansion, five times the present plans.

Bonderizing and painting equipment will be installed in a \$150,000 conveyerized department. In addition to all new and modern production equipment, Jordon will install overhead cranes throughout the plant.

DETROIT CONTROLS OPENS NEW BRANCH

Detroit Controls Corp. has opened a new factory branch and regional sales office at 7122 Roosevelt Road, Oak Park, Ill. The West Central regional sales office was formerly located at 816 S. Michigan Ave., Chicago.

A full line of heating and refrigeration controls will be carried in stock to take care of emergency and pickup requirements, and in addition, the office will be staffed with competent men to aid in service or application problems. A stock of "Renewed and Guaranteed" Controls will be carried for replacement purposes. The new location provides adequate parking facilities.

Manager of the regional office is T. C. "Bud" McKee, Jr. Working with McKee in the Chicago area are J. F. "Jack" McKenna, J. W. "Jim" Scott, Willis Stafford, R. M. "Ron" Van Tuyl and Henry Lyons.

JORDON TO DOUBLE PLANT FACILITIES

Jordon Refrigerator Co., Philadelphia, Pa., manufacturer of commercial refrigeration and upright home freezers, will build a new plant in the northeast section of that city, according to Frank Fogel, president.

The new plant, which will be double the size of the firm's present plant at 58th and Grays Avenue, will be located at Rhawn St. and Tabor Rd. Construction will begin in early summer, Fogel said, and it is hoped production lines will begin rolling there early in 1954. The cost will be over \$1,000,000.

The new Jordon plant will be located on 20 acres of land and will occupy over 150,000 sq. ft. of floor space on one floor. The production and office building will be

ALL-YEAR HOMES TO BOOM IN '53

Air conditioning will be widely offered in 1953 as an integral utility in thousands of low and medium-price homes, according to an on-the-spot survey of 23 large-scale builders who will construct more than 12,000 dwellings in 12 major cities of the East, Midwest and South.

The survey was made by Chrysler Airtemp. Cities covered in the survey ranged from Detroit to Miami.

Easy to See Why

SERVEL SUPERMETIC

Runs Cooler . . . Quieter . . . More Economically

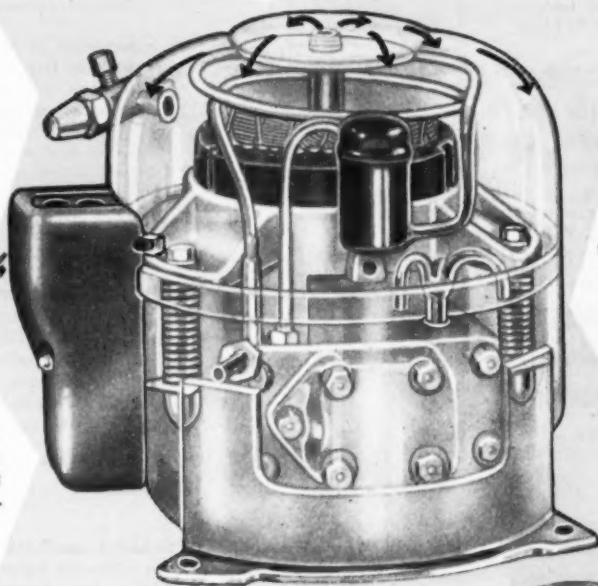
Geyser-like action of oil spray from top of shaft dissipates compressor heat through power unit dome — soundproofs movement of internal parts.



Refrigerant vapor returning from evaporator coil envelops stator windings — reduces motor heat to assure highest efficiency of power elements.



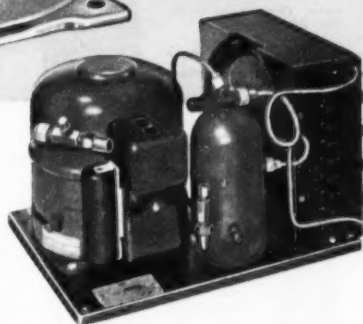
Easily accessible controls have long capacitor leads — only wiring required is to connect supply line to 2 terminal posts.



Internal spring mountings eliminate vibration. Unit can be bolted securely to mounting supports.



Here are Servel features that boost profits when refrigeration fixtures are "powered by Supermetics." Simple to install, exceptionally easy to check — Servel's quiet, economical operation will please your customers, create repeat sales. If you are not now using Servel, order a Supermetic next time you have a tough job or a critical customer. There's a size to match every requirement. All models are factory-warranted.



32 Servel Supermetic models for every commercial refrigeration need — from $\frac{1}{4}$ through 3 H.P.

Servel

SERVEL, INC., Electric Refrigeration Division, Evansville 20, Indiana

THE NAME TO WATCH FOR GREAT ADVANCES
IN REFRIGERATION AND AIR CONDITIONING

Circle No. 50 on Reader Service Card

and AIR CONDITIONING • APRIL, 1953

Circle No. 52 on Reader Service Card
Another FIRST from the Originators

Beautiful Gleaming Stainless Steel **COMBINATION BEVERAGE COOLER and ICE CUBE MAKER** with Built-In Water Station!



Deluxe Model
 especially designed for
 Night Clubs, Taverns and other Businesses

Model Triple A—Equipped with shelf that can be converted from a drip pan to a Frost Glass Chiller by moving to lower brackets. Built-In Water Station for cold water. Roto Polyethylene Trays make over 150 lbs. of ice cubes and dry cools 2000 12 oz. bottles daily. 3-Inch insulation. Remote type or self contained. 4-5-6-7-8 Ft. Sizes, 27" W, 39" H.

Exclusive Franchise available to
 dealers and distributors.

4-BROTHERS
REFRIGERATION MFG. CO.
 1427 So. 8th St., Philadelphia 47, Pa.

See us and our newest line at
BOOTH 57, FROZEN FOOD EXPOSITION
 Grand Central Palace, N. Y. C.
APRIL 20 - 23

FINE ICC REFRIGERANT CYLINDERS

LO-BOY TYPE

Safe! Broad base prevents tipping, provides extra valve protection. Light weight, easy to handle. Forged Brass valves, fuse metal safety. Sizes: 5L, 10L, 25L, 35L.



Your
 Headquarters
 for
 Cylinders

HI-BOY TYPE

A standard type; seamless, rugged, serviceable. Forged Brass valves, fuse metal safety. Hammered glass finish. Caps included except 5-lb. size. Sizes: 5L, 10L, 25L, 35L.

Both equipped with spring loaded safety relief at extra cost. **HANDY-TOTE CAPS** are also available.

ASK YOUR WHOLESALE!
 Write for new catalog No. 1152.

FINE PRODUCTS CO.
 4837 SOUTH WESTERN BLVD.
 CHICAGO 9, ILLINOIS

Circle No. 51 on Reader Service Card

80

USEFUL

BULLETINS • BOOKLETS • CATALOGS

The publications listed below are available to readers without charge. Simply circle on the postcard in this issue the key numbers of the items you wish to receive. Your requests will be forwarded directly to the companies concerned.

CONDENSATE COOLERS are detailed in the specification sheet offered by Taco Heaters, Inc. Charts included in the presentation cover capacities and dimensions. A schematic drawing shows an application of a condensate cooler for heating or preheating water.

Circle No. 111 on Reader Service Card

BTU METER INFORMATION is furnished in data sheet No. 10.19-1 issued by Brown Instruments Div., Minneapolis-Honeywell Regulator Co. Applications such as heater exchanger testing and heat transfer in air conditioning and refrigeration installations is included along with a schematic drawing of interconnections between flow recorder, differential temperature recorder and Btu recorder.

Circle No. 112 on Reader Service Card

FORTY-FOUR DIFFERENT STYLES of valves in angle, gate, globe and swing check types are illustrated, diagrammed and described in bulletin NVC-1, issued by Northern Indiana Brass Co. This 24-page bulletin describes threaded, solder end and flared tube valves. Introduced in the booklet is the new line of 125 SWP gate valves. The booklet describes all valves that the company manufactures.

Circle No. 113 on Reader Service Card

SEVENTY CATALOGS and technical handbooks on copper and brass products are listed in a file-size bulletin available from Chase Brass & Copper Co., Inc. Copper tube and fittings for radiant heating, condenser and heat exchanger tubes, copper water tube and fittings, and pipe and tube products are typical publications included in the listing.

Circle No. 114 on Reader Service Card

14-INCH DRILL PRESSES are covered in the new catalog issued by South Bend Lathe Works. Bulletin 5206 contains photographs and diagrams showing units and special construction features. Various models are listed and several applications are shown. Also included is information on attachments.

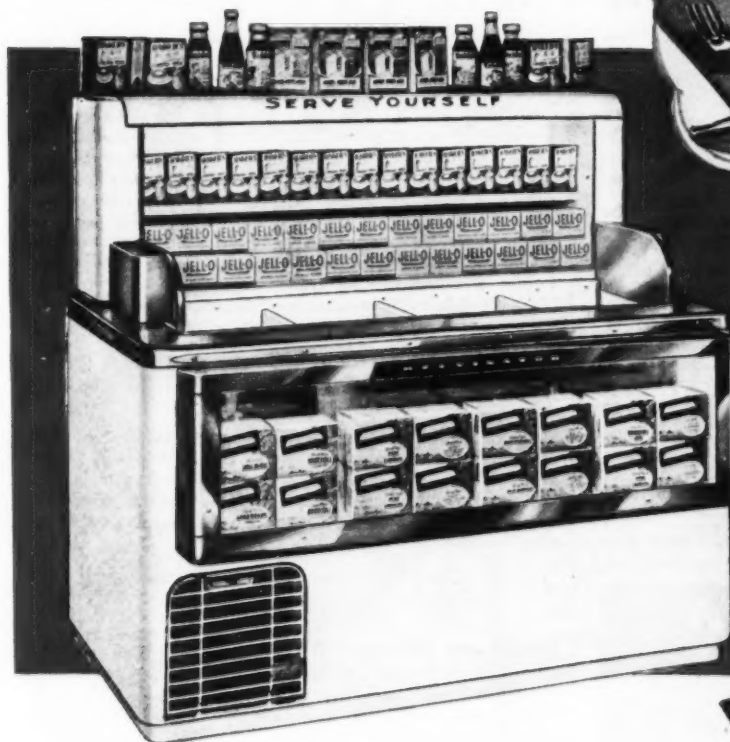
Circle No. 115 on Reader Service Card

PERFORMANCE AND ECONOMY of operation are graphically presented in a catalog sheet covering Model 50-B dehumidifier manufactured by Walter Haertel Co. The catalog sheet includes photographs of the unit as well as complete specifications on dimensions, compressor, coils, etc.

Circle No. 116 on Reader Service Card

(More Useful Literature on page 82)

This Salesman Sells Complete Meals!



New Superstructure on Kelvinator 12 cu. ft. Frozen Food Merchandiser has more than 8 sq. ft. of shelf space to display, promote and sell high profit non-refrigerated items!

Look at all the hard-working, point-of-sale display space built into this new Kelvinator superstructure. Now a great variety of foods can be displayed—soup, sauces, cake mixes, coffee, cocoa, packaged desserts, *all* sorts of canned goods. Here's a superstructure that will promote and sell *complete* meals . . . announce special "deals" . . . stimulate *multiple* purchases . . . sell *more* frozen foods!

Superstructure and cabinet interior illuminated

Cool, fluorescent indirect lighting gives a "come-on" glow to the superstructure, and simplifies the selection of frozen food in the cabinet. The "Showcase" front (an

optional accessory), which displays dummy frozen food packages, is also illuminated. The Kelvinator merchandiser itself is designed to give maximum refrigerated space for rapid turnover . . . yet the cabinet is so compact that it utilizes remarkably little floor space. For full information, write Kelvinator Commercial, Nash-Kelvinator Corp., Dept. CR-4, 14250 Plymouth Road, Detroit 32, Michigan.

SPECIFICATIONS — CAPACITIES

Model	Overall Dimensions (With Superstructure)			Approx. Capacity (Loaded within 3 1/2" of Top)	Cubic Feet	Shipping Weight (Approx.)
	Height*	Length	Width**	Average 12 Oz. Packages		
KM-12	52 1/2"	54"	30 3/4"	416	12	499 Lbs.

*34 1/2" to top of cabinet. Add 2 1/2" when used with casters.
**Without "showcase" front.

Get more . . . Get *Kelvinator*

Division of Nash-Kelvinator Corp., Detroit 32, Mich.

THE BEST KNOWN NAME ON MODERN FROZEN FOOD CABINETS

Circle No. 53 on Reader Service Card

and AIR CONDITIONING • APRIL, 1953

the Dean Says—

NOW ... BUY YOUR PLATES IN THE SIZES YOU NEED!

ZINC METALLIZED STEEL, STAINLESS
STEEL AND OTHER METALS.
CYLINDERS, U's, ANGLES,
TANKS, ETC.



DEAN

"JOB
TAILORED"

DEAN COLD PLATES

for
FROSTED FOOD DISPLAY
CABINETS
ICE CREAM CABINETS
SODA FOUNTAINS
FARM MILK COOLERS
FARM FREEZERS
LIQUID COOLERS
WINDOW DISPLAYS
FOOD COUNTERS
LOW TEMPERATURE
TEST ROOMS
REFRIGERATED TRANS-
PORTATION

Plates also available for
Baudelot-type Coolers

EVAPORATOR PLATES

Now you can get your plates
exactly as you want them ...
any size ... any shape ...
any metal! Think what this
means in time saved ...
MONEY SAVED! Before
you buy another plate, get
the facts on DEAN "Job
tailored" cold plates. It will
be well worth your while!
Ask your jobber, or write

DEAN PRODUCTS, INC.
1042 Dean St., Brooklyn 38, N.Y.
Sterling 9-5400
Write for Technical Data Book

BIG BUYS

IN SMALL PRECISION

FLOAT CONTROL VALVES

For controlling water in humidifying units, pan fillers,
air conditioning equipment, evaporative coolers, and air
washers. No. 51 and 52 Valves accurately maintain water
lines as low as 1" deep. Float adjustable. See your jobber
or write us.



No. 51

Only 5 1/2" long overall. Non-
corrosive metals throughout.
Easy to install by drilling
one hole. Capacity 1/2 gal. per
minute at 50 lbs. pressure.



No. 52

8" long overall. Same fea-
tures as No. 51 Valve, except
larger capacity—1 gal. per
minute at 50 lbs. pressure.



QUICK HOOK-UP SADDLE VALVE

Fits 1/2" and 3/4"
pipe. To install,
just drill 1/2"
hole in pipe.
Outlet pro-
vided for 1/2"
O.D. copper
tubing.



HANDY NEEDLE VALVE

Ideal to control
water supply to
humidifiers and
water valves.
1/2" I.P. male end
and 1/2" O.D. cop-
per tube size
outlet.

SEE YOUR JOBBER OR WRITE

MAID-O'-MIST, Inc. 3216 N. PULASKI ROAD
CHICAGO 41, ILLINOIS

Circle No. 55 on Reader Service Card

USEFUL LITERATURE . . .

Continued from page 80

SEVEN DIFFERENT COLORS of "Insulcolor" plastic coating
which serves as insulation as well as color code identification
are featured in the bulletin issued by Armstrong Cork Co.
Diagrams illustrate how to apply this material to both in-
door and outdoor piping, including coverings over magnesia,
asphaltic and asbestos cement finishes as well as duct in-
sulation.

Circle No. 117 on Reader Service Card

ANY INTELLIGENT PERSON can figure out the minimum
dehumidifying equipment and capacity needed to eliminate
moisture problems if he follows the methods and procedures
explained in the folder presented by the air conditioning divi-
sion of Remington Corp. No consultants, tools or special
equipment necessary; simply follow step-by-step methods.
Prepared by engineers, folder contains all necessary techni-
cal information to solve "case history" of an imaginary plant.
Folder also contains complete information on "Moisture
Magnet" dehumidifier with application, performance data,
dimensions and drawings included.

Circle No. 118 on Reader Service Card

LOADED WITH INFORMATION on industrial freezers and
complete temperature range testing units, an 8-page folder
presented by Industrial Freezer Div., Webber Appliance Co.,
also carries large illustrations on 12 of the 36 units described.
Performance characteristics, sizes, temperature ranges and ap-
plications are included.

Circle No. 119 on Reader Service Card

PRICES ARE INCLUDED in the new 8-page catalog (C-49)
issued by McDonnell & Miller, Inc. which describes and
illustrates boiler water feeders, low water fuel cut-offs, pump
controls and relief valves as well as two new models of relief
valves. Information is arranged to simplify selection of
proper equipment. Discount sheets have been published
showing contractors' and wholesalers' discounts and net
prices on the equipment covered in the bulletin.

Circle No. 120 on Reader Service Card

COMPLETE SELF FLARING tube fittings are described in the
pocket-sized, 4-page brochure issued by Screw Machine
Products Div., Scovill Mfg. Co. A cut-away view shows de-
tails of the "Uniflare" fitting and a table showing the ap-
plications with various sized tubing is included. A list of
exclusive features incorporated in the fitting is also presented.

Circle No. 121 on Reader Service Card

A WAY TO ELIMINATE boiler scale and corrosion problems
is presented in a 4-page bulletin on Borgana issued by Strong,
Carlisle & Hammond Co. Complete description of the com-
pound with detailed directions for use is included. A diagram
showing effectiveness on entire systems and explanations of
how the material eliminates corrosion and pitting, oil trouble,
foaming and embrittlement is also presented. Details of policy
insuring product up to a value of \$200,000 against injury
to equipment also are presented.

Circle No. 122 on Reader Service Card

(More Useful Literature on page 84)

Torture Tests Prove That IMPERIAL TRIPLE-SEAL FITTINGS Remain Leakproof



PLASTIC CAPS on flared ends protect fittings during shipping and handling.

SEE YOUR JOBBER

In severe tests, Imperial Triple-Seal Flared Tube Fittings which had had their seats purposely battered, like the one in this untouched photo, made up into joints that withstood 250 lbs. Freon pressure without the slightest trace of leakage. Conventional fittings, subjected to the same treatment, had to be refaced before they would hold the Freon.

And here's why: a groove is machined into the face of the seat on Imperial Triple-Seal Fittings bringing you *triple-seal tightness in every joint*. When the flare nut is drawn up, the copper tubing is forced into this groove making a tight, self-sealing joint even though the face is nicked or marred. Groove is included on all sizes $\frac{3}{8}$ " and larger.

Additional protection, provided by extra length Dryseal pipe threads, is especially valuable in reconnecting.

Specify Imperial Triple-Seal Flare Fittings to get all this extra protection against leakage. *They cost you no more than ordinary fittings*—and may save you from costly call backs.

Ask for Catalog 80-A

THE IMPERIAL BRASS MFG. CO.

536 South Racine Avenue, Chicago 7, Illinois
In Canada: 334 Lauder Ave., Toronto, Ontario



Imperial Triple-Seal Flare Fittings have 3 seals to give you new, extra protection against leakage.

IMPERIAL

Fittings • Valves • Filters • Driers
Floats • Charging Lines • Tools for Cutting,
Flaring, Bending, Pinch-off and Swedging

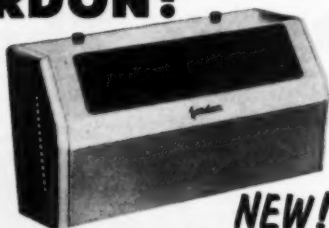
Circle No. 56 on Reader Service Card

and AIR CONDITIONING • APRIL, 1953

Circle No. 57 on Reader Service Card

COOL PROFIT FROM JORDON!

**TWO
BRAND
NEW
PRODUCTS!**



NEW!

ROOM AIR CONDITIONER

with 4-WAY, ADJUSTABLE AIR FLOW!

Easily set to circulate air to any direction. Smartly styled cabinet, finished in Gray Hammertone, Baked enamel. 3/4 H.P. Compressor. Trim, compact, easily installed. Backed by Jordan Warranty.

NEW! ROOM DEHUMIDIFIER

Portable! Practical! Profitable!

Model DE-11. Can withdraw 11 qts. moisture in 24 hrs. from 8,000 cu. ft. area. On easy-rolling ball-bearing casters. Gray Hammertone, H-Baked enamel finish.

**PRODUCTS that SELL!
FEATURES that SELL!
PROMOTIONS that SELL!**

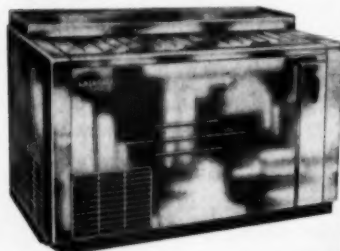
**Be ready!
Start early!
Write or Wire
for Details NOW!**

JORDAN SALES COMPANY
58th and Grays Ave.—Phila. 43, Pa



IF IT'S JORDON, IT'S RELIABLE!

LA CROSSE GIVES YOU MORE OF EVERYTHING YOUR CUSTOMER WANTS MOST IN COMMERCIAL REFRIGERATION

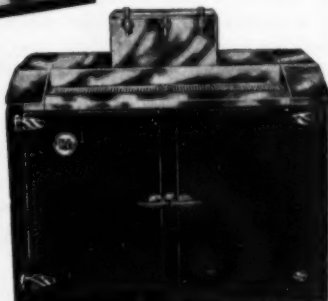


BLUEBIRD BOTTLE COOLER

A real Leader from LaCrosse . . . in design, in efficiency, in economy. Only 33 1/2" high, the Bluebird fits under counters and bars, easy operating push back doors. Models 4' - 6' - 8' finished in Blue Hammeroid or Stainless Steel.

LACROSSE DIRECT DRAW

Takes the "guesswork" out of tap beer profits!! No waste—no "draw offs"—a perfect glass of beer every time. Refrigerated faucets keep beer at ideal temperature from keg to glass.



• CUBEMAKERS • REACH-INS • WALK-INS

LA CROSSE COOLER COMPANY

2814 Losey Blvd., So., La Crosse, Wis.

Export Office: 80 Broad St.
New York City
Cable: Eximport

Circle No. 58 on Reader Service Card

USEFUL LITERATURE . . .

Continued from page 82

WELDING EQUIPMENT necessary for all oxy-acetylene welding and cutting operations is described in the new catalog, No. 150, which has been issued by Modern Engineering Co. The text, plus over 150 illustrations, provides a complete and comprehensive guide for the user of welding equipment. Each item of equipment is explained in detail with specific recommendations for its use.

Circle No. 123 on Reader Service Card

IF YOU DON'T KNOW ALL there is to know about the installation, operation and maintenance of evaporative condensers, then the manual covering these topics issued by Baltimore Aircoil Co. is a must. This 28-page booklet consists of two parts, an installation and operation manual and a maintenance manual, each furnishing pertinent data on the specific phase. Schematic layouts show both right and wrong installations for single and multi-condenser systems and charts are included which show correct size selection and dry operation performance.

Circle No. 124 on Reader Service Card

CRAMPED FOR SPACE? If so, the flexible ducting discussed in the new four-page bulletin (C2-3) available from Flexible Tubing Corp. may solve your problems. The ducting, made of fabric supported rubber or plastic wound on helical spring wire coils, is lightweight, highly retractable, non-collapsible, non kinkable, flexible enough to allow full 180 degree turns and requires no installation skill. Uses include portable and semi-permanent ventilation, fume removal, dust collection, materials handling, original equipment designs and maintenance applications.

Circle No. 125 on Reader Service Card

DO YOU NEED TO DETERMINE air velocity in your work? Bacharach Industrial Instrument Co. has issued a bulletin (809) which may be of interest if air velocities plague you. Describing the "FloRite" air velocity meter, this four-page, two-color booklet contains pictures showing both remote and in-hand applications. A cut-away view shows the "works" of the meter and photographs help to explain various features described.

Circle No. 126 on Reader Service Card

SOLENOID ELECTRIC VALVES for high pressure lines are presented in the new, four-page brochure issued by Automatic Valve Co. Details of design, applications and sizes of bronze and stainless steel valves are handled as well as dimensions of the high pressure valves. Schematic drawings show both the normally closed and the normally open operation. Application and operational data for both types is provided.

Circle No. 127 on Reader Service Card

ELECTRICAL DATA SHEET covering a line of electrical measuring instruments has been issued by Associated Research, Inc. Illustrated with photographs of the several instruments, this reference data sheet describes models for insulation resistance, ground resistance, and high voltage testing equipment. Bulletin 10AA also includes information on other special purpose instruments.

Circle No. 128 on Reader Service Card



MAKE MONEY WHEREVER THERE ARE PEOPLE!

Mills Industries, Pioneer Builders of High Profit Ice Cream and Frozen Custard Freezers for over 20 years, announces the revolutionary
NEW

Mills TWIN-HEAD FROZEN CUSTARD FREEZER

Popular frozen custard and soft frozen ice cream made fresh and whole- some right on the spot set astounding sales records every year. This tremendous surge in popularity adds vast extra profits to established businesses large and small. It provides exceptionally great money-making opportunities to those who want to get into their own business.

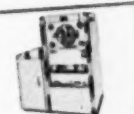
The new Mills Twin-Head Continuous Custard Freezer is easy to install, easy to operate, compact in size, low in cost. Floor and counter models are available. Clean, sanitary ultra-modern design, and the automatic two flavor operation builds enormous volume business. You serve smooth, delicious soft ice cream for cones, malts, shakes and six modes right from the handy draw-off spigots. Users report profits of over 64 per cent.

Thousands of gratified Mills customers are making extraordinary profits year after year. We have actual profit figures proving how a Mills Freezer can make huge profits for YOU!

HERE'S WHAT A FEW PROUD OWNERS SAY!

From Tennessee—"Ordered my first Mills in June '30 and the second March '31—profit good."
From Louisiana—"Made profits immediately."
From Michigan—"High quality, easy to operate at low cost."
From Denver—"Many a dollar of profit for my very small investment."
From New York—"Remarkable equipment completes picture of success."

From Nebraska—"The Mills is the only machine that serves my purpose."
Another 100%—"Installed my Mills in October; glad I got started."
From Massachusetts—"Mills freezer down the growth of my business."
From Kentucky—"From April 19 to July 31, 1931, my net profit was \$4,400."
From Phoenix, Arizona—"Recommended use of Mills Freezer to anyone... Our service cost has been nil."



ANOTHER MILLS FREEZER
Mills All-Purpose Ice Cream and Continuous Custard Freezer is the most modern high capacity versatile machine on the market. Makes regular batch ice cream for gallon, half gallon and quart packages, etc., and all Frozen Custard and soft ice cream products. Mills Freezers produce the finest quality products at low cost for restaurants, ice cream parlors, institutions, dairies, drug stores, theaters.



New 28-page Booklet "Cold Facts About Hot Profits" contains dozens of illustrations and actual profit figures. Write to Mills Industries for your copy—or contact the Mills Distributor nearest you for booklet and practical help.

THESE REPRESENTATIVE COMPANIES CAN GIVE YOU FULL INFORMATION

Ala. Anderson, H.C. Malhot
Ark. Anderson, H.C. Malhot
Cal. Anderson, H.C. Malhot
Col. Anderson, H.C. Malhot
Conn. Anderson, H.C. Malhot
Del. Anderson, H.C. Malhot
Fla. Anderson, H.C. Malhot
Ill. Anderson, H.C. Malhot
Ind. Anderson, H.C. Malhot
Iowa. Anderson, H.C. Malhot
Kan. Anderson, H.C. Malhot
La. Anderson, H.C. Malhot
Me. Anderson, H.C. Malhot
Mass. Anderson, H.C. Malhot
Mich. Anderson, H.C. Malhot
Minn. Anderson, H.C. Malhot
Mo. Anderson, H.C. Malhot
N.J. Anderson, H.C. Malhot
N.Y. Anderson, H.C. Malhot
Pa. Anderson, H.C. Malhot
R.I. Anderson, H.C. Malhot
S.C. Anderson, H.C. Malhot
Tenn. Anderson, H.C. Malhot
Tex. Anderson, H.C. Malhot
Va. Anderson, H.C. Malhot
Wash. Anderson, H.C. Malhot
Wis. Anderson, H.C. Malhot
Wyo. Anderson, H.C. Malhot

MILLS INDUSTRIES, INCORPORATED

4144 FULLERTON AVENUE
CHICAGO 39, ILLINOIS

MORE *Active* DISTRIBUTORS WANTED to Cash in on National Advertising

Highly profitable territories are open to you active, reputable, profit-minded distributors! Mills vast profit potentials will stagger your imagination! Only good, active distributors can get and keep this valuable franchise!

The distributors we want are 12 months a year men — willing and able to cooperate with us and take advantage of Mills National Advertising. You don't have to be big, but you have to be active. Small distributors can, and have grown big with Mills line alone!

Here is an exceptional and unusual opportunity

to join the oldest manufacturer of high profit Continuous Counter Freezers in the world. Advantages are many. Mills Freezers are in a class by themselves — in profit making, modern beauty, ease and economy of operation, quality, and at prices no higher than are being paid for inferior equipment. Your customers are shown huge, immediate profits that pay for their Mills Freezers in almost no time. You are backed by national advertising in both consumer and trade publications.

Write Mills Freezer Division now for specific distributorship details.

MILLS INDUSTRIES, Incorporated • 4144 FULLERTON AVE., CHICAGO 39, ILLINOIS

Circle No. 59 on Reader Service Card

NEW

PRODUCTS

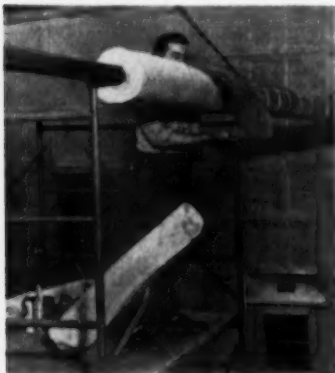
For further information on any of these products, simply circle on the postcard provided in this issue the key numbers of the items in which you are interested. Your requests will be forwarded directly to the companies concerned.

Wrap-Around Pipe Insulation

Product: "Aerowrap" flexible wrap-around pipe insulation for hot and cold pipes of all sizes.

Manufacturer: Owens-Corning Fiberglas Corp., Toledo, Ohio.

Features: Fine fibered insulation blanket has special binder for industrial applications. Soft and resilient, has high heat-saving thermal ef-



iciency. Available in 100 ft. rolls, 36" wide and 3/4" thick. Can be cut with sheers, knife or paper cutter. Can be used on pipes with temperature ranges from sub-zero to 600 F. Kept in place by staples, adhesive or cord. Provides heat savings up to 25% over equal thicknesses of rigid insulation, installation costs reduced one-third, and compressibility allows up to 75% storage space reduction.

Circle No. 131 on Reader Service Card

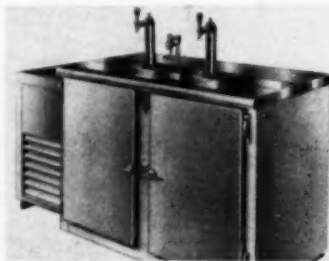
Draft Beer Cooler Line

Product: "Speed-Freeze" line of draft beer coolers for instantaneous liquid cooling.

Manufacturer: Ideal Cooler Corp., St. Louis, Mo.

Features: CDR line of beer coolers has either self-contained or remote type units. All units have 1/4-hp compressor, "Artic-Fin" evaporator and 2 beer and 1 water faucets. Fau-

cets have refrigerated foam control. Capacity is 2, 3, or 4 half-barrels, 2 1/2 gals. of bar water. Silver gray



enamel finish baked on rustproofed steel with stainless steel top and splash pan.

Circle No. 132 on Reader Service Card

Flaked Ice Machines

Product: Six models of Soctsmen "Super-Flaker" ice machines produce flaked ice for packing, cooling or display purposes.



Manufacturer: American Gas Machine Co., Albert Lea, Minn.

Features: Available in three capacities: 350 lbs., 550 lbs. and 1000 lbs. daily, with either completely automatic storage-type or continuous-flow type operation. Turns on and off automatically. Capacity of storage bins equal to 10 to 12 hours

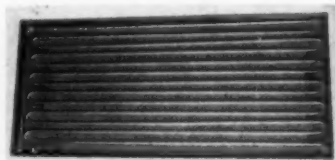
output. Operation costs range from about 20c a day for smallest unit to around 40c a day for the largest. Patented freezing and flaking mechanism, no moving parts.

Circle No. 133 on Reader Service Card

Truck Cooling Plate

Product: Three-connection eutectic vacuum plate for installation in truck refrigeration units.

Manufacturer: Dole Refrigerating Co., Chicago, Ill.



Features: Plate has one additional connection enabling all top, all bottom or combination of top and bottom connections. Eliminates costly refrigerant line protectors. Plate affords material savings to body builders by eliminating complaints of service calls and route delays. Because of easier installation, will reduce shop man hours.

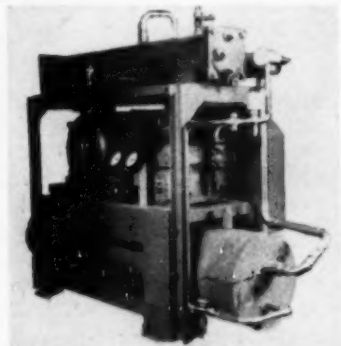
Circle No. 134 on Reader Service Card

New Liquid Chilling Unit

Product: Model WCU-10-1005X 10-hp liquid chiller.

Manufacturer: Baker Refrigeration Corp., South Windham, Me.

Features: Unit pre-engineered, fabricated and assembled completely at factory. Unit sizes 30 to 60 hp can be fabricated and shipped knocked down to accommodate installation requirements. Available in sizes



from 10 to 60 hp, with water cooling capacities of 22 gpm to 160 gpm through a 10-degree cooling range. Component parts furnished in com-

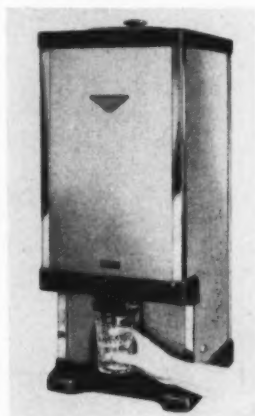
pleted assembly consisting of compressor, motor, gauge board assembly, dual pressure control, condenser, chiller and heat exchanger mounted on a structural steel base and frame. Thermostatic expansion valve, liquid line solenoid and strainer, liquid sight glass, fusible plug or relief valve, thermostat and charging valve plus interconnecting refrigerant lines are included.

Circle No. 135 on Reader Service Card

Ice Shaving Machine

Product: "Snow-Ice" ice shaving machine for counter use.

Manufacturer: Ice Appliances, Inc., New York, N. Y.



Features: Unit stands 30" high and occupies only 11½ x 12½" of counter space. Especially designed for "Snow Balls" and "Snow Cones." Engineered for immediate response at the touch of a lever, machine produces desired amount of snow instantaneously. Available only through distributors and dealers.

Circle No. 136 on Reader Service Card

Electrical Conduit

Product: "Sealtite" Type UA flexible electrical conduit.

Manufacturer: American Brass Co., Waterbury, Conn.

Features: First of type to gain UL approval for use in wet locations. Conduit made of spirally wound, interlocked zinc-plated steel strip with copper binding conductor wound spirally in the space between each convolution on inside of conduit. Tough, extruded cover over flexible metal core protects wiring against moisture, oil, dirt, chemicals and corrosive fumes. Light, flexible conduit

can be cut to desired length, bends easily. Available in long lengths in nominal electrical i.d. sizes 3/8 to 1¼" inclusive. UL approved fittings also available.

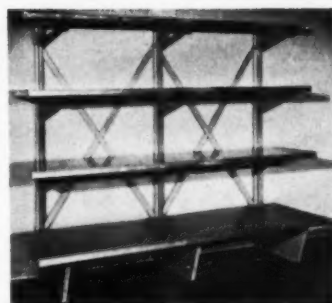
Circle No. 137 on Reader Service Card

Wall Shelving

Product: Complete self-service wall display unit.

Manufacturer: S. A. Hirsh Mfg. Co., Skokie, Ill.

Features: Unit consists of a set of accordin-action steel braces



to which are attached specially designed steel uprights and shelving brackets. When braces are fully ex-



Now you can get PA-100, Davison's refrigeration grade silica gel in the pour spout can. With this can there is less chance of spilling the product and there is a minimum of moisture pick-up while can is open. When cap is replaced there is a positive seal assuring you of an active product at all times. And with the new pour spout can you get the same superior product that has always led all refrigerant drying agents. Unlike many refrigerant drying agents, PA-100 is completely inert... contains no corrosive compounds. In fact, PA-100 removes acids and corrosive compounds as well as water. Because PA-100 dries by physical absorption, not by chemical reaction, no corrosive salt or acid solutions are produced.

PA-100 is a hard granular material which will neither dust nor powder. PA-100 does not disintegrate or liquefy, never shrinks or swells in the system. PA-100 retains its particle size and shape indefinitely.

Get PA-100 in the new spout can today. For more information see your Davison Field Service Engineer or write

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Baltimore 3, Maryland

PRODUCERS OF: CATALYSTS, INORGANIC ACIDS, SUPERPHOSPHATES, PHOSPHATE ROCK, SILICA GELS, AND SILICOFLOURIDES. SOLE PRODUCERS OF DAVCO GRANULATED FERTILIZERS.

Circle No. 60 on Reader Service Card

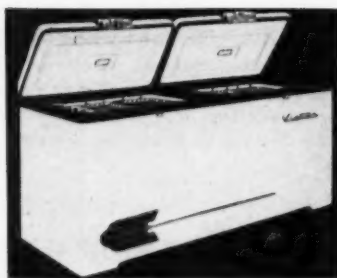
tended, shelving is placed on the brackets, with no tools required for assembly. Construction features permit automatic locking of all parts. Circle No. 138 on Reader Service Card

Two-lid Quickfreezer

Product: Model 7325 two-lid chest type 25-cu. ft. food freezer.

Manufacturer: Victor Products Corp., Hagerstown, Md.

Features: Counter-balanced hinged lids, tumble type locks with



two keys, large separate quick freezing compartment, automatic interior light, no additional accessories re-

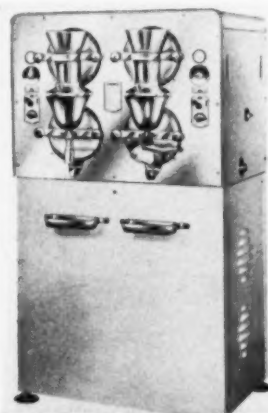
quired. Storage capacity for approximately 878 lbs. of frozen food. Dimensions are: 80 $\frac{3}{4}$ " length, 31 $\frac{3}{4}$ " depth, and 39 $\frac{1}{2}$ " height. Other models in the line range in size from 8 to 30 cu. ft., including the new 18 cu. ft. upright.

Circle No. 139 on Reader Service Card

Soft Ice Cream Freezer

Product: Model 950 twin compressor freezer enables two different flavors to be simultaneously mixed, with sufficient space for two operators to work at the same time.

Manufacturer: Freez-King Corp., Chicago, Ill.



Features: Designed for use in large capacity installations, model contains 7 gal. mix storage, refrigerated. Cabinet is 37" wide, 24" deep, 65" high. Patented automatic feed, seeing-eye dial, automatic temperature control and patented back feed. Equipped with either spigot or draw-off gate. All parts easily accessible for cleaning. Streamlined cabinet design. Four additional models are included in the line with above features incorporated.

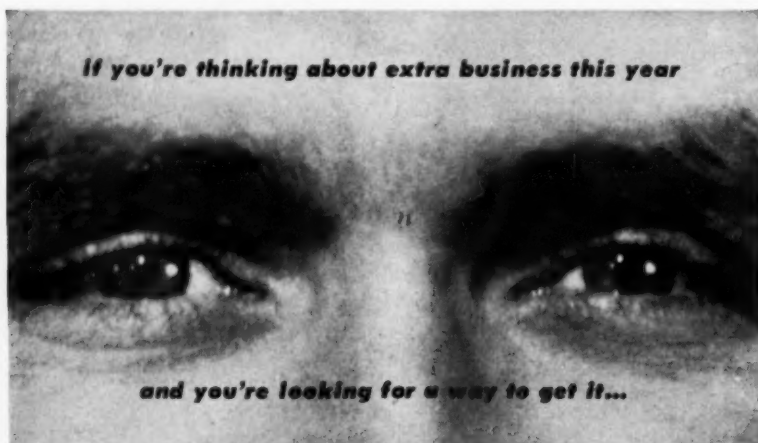
Circle No. 140 on Reader Service Card

Allen Wrench Set

Product: "Smitty" socket head set for driving standard Allen head bolts and screws, contained on knife-like folding handle.

Manufacturer: H. D. Hunter Tool Co., Whittier, Calif.

Features: Small enough to fit in pocket, design permits greater leverage at all angles. Five sizes of shafts individually swing out of handle into driving positions. Model P-5 fits set screws No. 10 to 7/16" inclusive, cap



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and you're looking for a way to get it...

call us...wire us...write us today about the new self-service

BALLY SERVICOLD 60

sell it with your present line

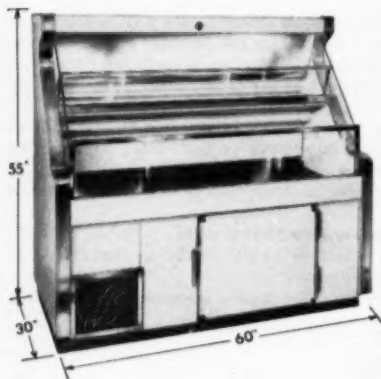
you sell where you

never could sell before

IT'S ONLY 60 INCHES LONG!

Sell it to old customers... it's what they have been waiting for. Sell it to new prospects... get extra business for yourself where limited floor space and higher cost of larger cases stopped sales before. It's brand new open refrigeration for Delicatessens, Meat Markets, Grocery Stores, Dairies, Confectioneries, Drug Stores, Florists Shops... all prospects for Bally Servicold 60... you can sell it everywhere.

List Price \$990.00 F. O. B. Bally
quality for your customers...extra sales for you



SERVICOLD 60 IS AVAILABLE TO FRANCHISE DEALERS OF OTHER LINES IN TERRITORIES WHERE BALLY IS NOT BEING SOLD

- ① It's small... only 60" long, 30" deep, 55" high... makes it easy for every "Ma and Pa" store to get into self-service selling. Big sales-getter for Super Markets when used as a "Spot Special" case.
- ② It's open style... easy self-service for the small store... just what they need for dairy products, fruits and vegetables, meats, delicatessen, candy and baked goods. Finish is genuine Bally acid-resistant porcelain for lifetime service... never turns yellow or peels.
- ③ Displays plenty of merchandise... in addition to the roomy main shelf there is an ample sized refrigerated mezzanine shelf for extra display. Complete display is doubled in appeal by the lifetime copper-back mirror angled to catch the eye.
- ④ Large refrigerated compartment... located in lower section of the case provides perfect storage space to keep extra supplies of all types of perishable foods.
- ⑤ It's easy to install... only 30" deep to go through the narrowest door of any small store. Just put the case in position, plug in the nearest socket and you're ready to refrigerate.
- ⑥ No compressor worries... powerful 1/3 horsepower noise-free hermetic compressor with capillary tube built in (5 yr. warranty). Merchandise is preserved and protected by a constant flow of cool dew-laden air.

BALLY CASE & COOLER COMPANY
Dept. C, Bally, Pennsylvania • Telephone Bally 5-2311

Circle No. 61 on Reader Service Card



JE

SOLENOID VALVES



Insure Quiet, Dependable Air-Conditioning in San Antonio's Famous Menger Hotel

A Texas tradition since 1859, the Menger Hotel in San Antonio is unique in its combined historical atmosphere and modern resort hotel appointments. Located next to the Alamo, the Menger features comfortable guest rooms, magnificent dining facilities, and a beautiful new swimming pool in one of its two luxurious patios.

Air-conditioning was installed in 112 rooms of this famous hotel by Decker and Roberts, contracting engineers, of Fort Worth, Texas. Because of their superior performance, JE Solenoid Valves were chosen to provide personalized temperature control of these guest rooms. In true Menger tradition, it's "nothing but the best for the best."

ALL JE SOLENOID VALVES HAVE THESE 5 MAJOR FEATURES OF DEPENDABILITY:

- Tight Seating — no bubble tolerance.
- Simplicity — only two moving parts.
- Long Life — cool coils.
- Durability — all corrosion-resistant material.
- Opening Pressure Differential — higher than most others on the market



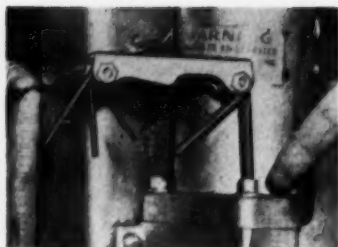
**UNCONDITIONALLY GUARANTEED
FOR 18 MONTHS**

See your local refrigeration wholesaler, or write us today for details

JACKES-EVANS MANUFACTURING COMPANY

Controls Division, 4427 Geraldine Ave. • St. Louis 15, Missouri

Circle No. 62 on Reader Service Card



screws No. 5 to 5/16" inclusive. Model P-6 fits set screws No. 3 to 5/16" inclusive and cap screws No. 1 to 12 inclusive. When ends of wrenches wear down, repair can be

effected by grinding off worn portion. Wrench can be replaced by removing end bolt and inserting new wrench.

Circle No. 141 on Reader Service Card

Condensate Disposal Unit

Product: Automatic condensate disposal unit as addition to line of pumps and blowers for industrial and marine purposes.

Manufacturer: Sutton Mfg. Corp., Norfolk, Va.

Features: Disposal unit designed for use on air conditioning equipment and similar machinery. Self-contained units deliver at rate of 5½ gal. per min. at 10 ft. head to 1 gal. per min. at 22 ft. head with shut-off at 24 ft. Applicable for draining water from produce and meat cases and water cooler installations remote



from sewer connections. Unit is connected so condensate flows into receiving tank. At predetermined height, pump automatically starts and delivers it to disposal point. Check valve in outlet prevents flow back. Steel tank with corrosive-resistant baked enamel finish has capacity of approximately 2½ gal., a 3" inlet and a ½" outlet. Centrifugal type, all-bronze pump is powered by 1/15 hp motor. Automatic switch set to pump approximately ¾ gal. condensate at each operation.

Circle No. 142 on Reader Service Card

Here's a Sales Maker
for You...
for Your Customers-
The New
VIKING CASE
for Dairy Products or Fresh Meats

This new case has all the features your customers want in an open-type, self-service case. Famous Norsair® cooling assures proper temperatures and humidity . . . is easily regulated for refrigeration of dairy products or meats . . . at minimum operating cost. The compact, spacious case comes in two or three deck models and in six and ten foot lengths. Extensible. Sparkling porcelain interior and exterior, gleaming mirrors, fluorescent lighting, double glass front and ends provide eye-appealing display.

To sell more, sell Viking. Inquire today about a Viking franchise.

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☐ Send me more information about Viking's new No. 1006-D & M and No. 1010-D & M Case.

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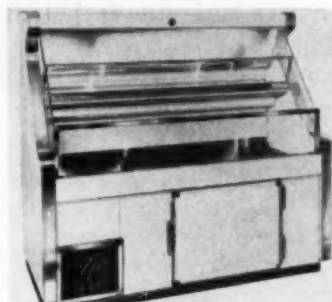
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City _____ State _____

Circle No. 63 on Reader Service Card

Refrigerated Display Case

Product: "Servicold 60" refrigerated display case designed to bring self-service to small stores, or to spot-special sales in super markets.



Manufacturer: Bally Case & Cooler Co., Bally, Pa.

Features: Compact case is 60" long, 30" deep and 55" high. In ad-

dition to main shelf, large sized refrigerated mezzanine shelf provides extra display. Large refrigerated compartment in lower section provides storage space for perishables. Unit is ready to run with the plugging in to wall outlet. Lifetime copper-back mirror angled to catch the eye. Finished with acid resistant lifetime procelain.

Circle No. 143 on Reader Service Card

All Year Air Conditioner

Product: Direct fired gas air conditioner for year-around home air conditioning.

Manufacturer: Servel, Inc., Evansville, Ind.



Features: Designed for homes in \$10,000-\$14,000 bracket containing up to 1200 sq. ft. of floor space. Two-ton conditioner requires 8½ sq. ft. floor space, is 75" high, 27" wide. Gas-operated absorption unit provides quiet operation, long life, low installation and maintenance costs. Delivered complete less ductwork instead of being assembled on site.

Circle No. 144 on Reader Service Card

Upright Freezer

Product: Two sizes of upright freezers.

Manufacturer: United Refrigerator Co., Hudson, Wisconsin.

Features: 15-cu. ft. and 32-cu. ft. models with all-steel, all-welded body finished with two coats of white "Dulux" baked enamel. Coils placed in top, bottom and in each of four shelves produce "balanced freezing". Heavily insulated to insure minimum heat loss. Two separate food compartments with dual doors. Easy storage and accessibility.

Circle No. 145 on Reader Service Card

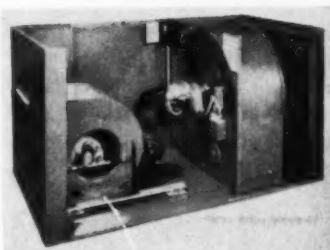
and AIR CONDITIONING • APRIL, 1953

Package Cooler Unit

Product: "Far-Air" package cooler to humidify and cool dwellings and business structures.

Manufacturer: Farr Co., Los Angeles, Calif.

Features: Improved chemical brick in water tank prevents accumulation of salts and minerals on rotor which carries 5-year warranty. System for automatic periodic draining and flushing of water tank to remove minerals and organic matter. When installed in conjunction with mechanical refrigeration units in



operation, cooler lowers power consumption to 25% of that formerly required by mechanical unit alone. Rotor revolves at 1½ rpm, no flying droplets to dampen surrounding

LEADING REFRIGERATION SERVICE SHOPS USE

DURO-CHROME Refrigeration Tools

THE MOST COMPLETE LINE IN "MATCHED SETS"

When you use specially designed Duro-Chrome "Matched Set" Tools—you can do all refrigeration jobs **Faster — Easier — Better!**

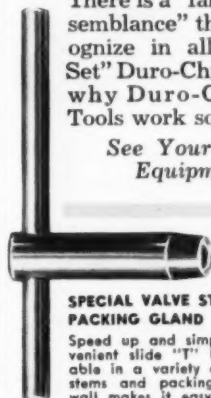
Each tool instantly seems just right in your hand. Your fingers drop easily into the natural grip and you get a feeling of perfect balance. There is a "family resemblance" that you recognize in all "Matched Set" Duro-Chrome Tools. That's why Duro-Chrome Quality Tools work so well together.

See Your Refrigeration Equipment Jobber



DURO REFRIGERATION RATCHET

5 tools in 1! Head has 1/4" square drive hole and fingertip reverse control. Handle has 3/16", 1/4" and 5/16" square openings for valve stems and a 1/2" hexagon opening for head, seal and flange bolts. Chrome alloy steel, chrome plated and brightly polished. Only 6-1/4" overall.



SPECIAL VALVE STEM AND PACKING GLAND "T" WRENCHES

Speed up and simplify jobs with these convenient slide "T" Handle Wrenches. Available in a variety of sizes to fit most valve stems and packing gland nuts. Extra thin wall makes it easy to get at these hard-to-reach spots.



FLARE NUT WRENCHES

Accurately broached hex openings fit flare nuts securely and allow positive turning action in close quarters. Straight or offset type. Brightly chrome-plated and polished, chrome alloy steel.

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REFRIGERATION SOCKET SETS

With chrome alloy steel sockets in all the sizes and shapes required for refrigeration work. Hexagon for hex nuts and bolts, square for valve stems and set screws; special oval or prong sockets for packing gland nuts.



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Also Makers of Nationally Advertised DURO Power Tools

Circle No. 64 on Reader Service Card

areas. Available in three models, 2500, 4000 and 6000 cfm capacities. Guaranteed to deliver rated volume at static pressure depression less than .40" of water at blower outlet. Circle No. 146 on Reader Service Card

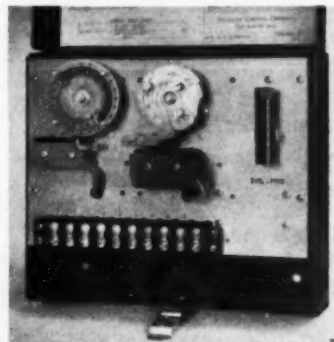
Two Defrost Controls

Product: Models MG3B-KT1 and MG3B-KT1A automatic water spray defrost controls for commercial refrigeration equipment.

Manufacturer: Paragon Electric Co., Two Rivers, Wis.

Features: Consists of two electrically interlocked timers. Left-hand timer controls defrosting frequency, permits defrosting operation every 1, 2, 3, 4, 6, 8, 12 or 24 hours, has removable pin-type dial for ease in setting. Right-hand timer controls fan delay, water spray and drain periods. Fan delay adjustable from zero to 10 minutes in 1-minute increments, permits a pump-down of refrigerant and a coasting period for fans before de-

frosting begins. Water spray cycle adjustable from 1 to 15 minutes in 1-minute increments, permits setting cycle for different water temperatures



and conditions. Drain period variable from 1 to 5 minutes in 1-minute increments, permits water drain from evaporators before fans restart so moisture will not be blown into refrigerated space.

Circle No. 147 on Reader Service Card

NEW! IMPROVED DRYING AGENT for fast, high-capacity liquid line drying!

PERMAGRAN*

U.S. PAT. NO. 2,625,516

Hardened Granular Anhydrous Calcium Sulphate



Now available at
your wholesaler
exclusively in
**McIntire DC
Filter Driers**

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After 2 years' research and field testing, McIntire brings you the great drying ability of anhydrous calcium sulphate, with each individual granule permanently hardened and stabilized by the patented PERMAGRAN process.

- Positively no powdering or dusting.
- Not affected by water, acids, alcohols, oils, refrigerants or high liquid line temperatures.

PERMAGRAN provides greater effective surface area, with minimum pressure drop. Dries to minus 60° dew point in first pass, effective at liquid line temperatures up to 150° F. Moisture pickup 20 drops per cubic inch. Use with all refrigerants.

McINTIRE CONNECTOR CO., Livingston, New Jersey

Our 28th Year



DRIERS — Moisture Control Units
Moisture Indicators — Filters — Strainers



Circle No. 65 on Reader Service Card

Moisture Conditioner

Product: "Two-way" moisture conditioner increases humidity content of air in winter and lowers it in summer.

Manufacturer: Admiral Corp., Chicago, Ill.



Features: Unit will remove up to 3 gal. of water from the air every 24 hours when dehumidifying, will add 2 gal. of water every 24 hours when humidifying. In humidifying cycle, pivotal heater is immersed in 3-gal. water container. Fan circulates moisture-laden air as water evaporates. When all water has evaporated, heater automatically turns off. In summer, moisture is removed by cooling series of coils below room

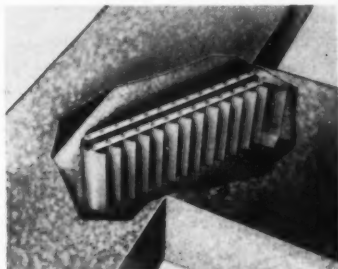
temperature. Air drawn in bottom of unit by fan passes over coils, moisture condenses and drops into removable container. Hermetically sealed unit with 5-year warranty. Stands less than 2' high, is 16" in diameter. Weighs slightly more than 50 lbs., hand grip on top to ease carrying.

Circle No. 148 on Reader Service Card

Air Volume Extractor

Product: Model AG-45 double duty adjustable air volume extractor and controller.

Manufacturer: Titus Mfg. Corp., Waterloo, Iowa.

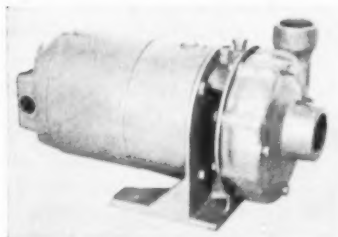


Features: Factory assembled, is installed with 2 screws. Made to replace extra volume controller, is adjustable from full-open to full-closed position. Curved blades turn air from main duct, brings even distribution to grille face. Reduces pressure losses, stops excess turbulence. Heavy-duty, rattle-free construction of from 14 to 26 gauge steel.

Circle No 149 on Reader Service Card

Industrial Centrifugal Pump

Product: Fig. 3642 close-coupled centrifugal pump designed to meet air conditioning requirements.



Manufacturer: Gould Pumps, Inc., Seneca Falls, N.Y.

Features: Delivers up to 110 gpm, operates at heads up to 110 ft. Electric motors range from 1/4 to 2 hp, discharge outlets tapped to take 1 or 1 1/4" pipe. Motor and pump

and AIR CONDITIONING • APRIL, 1953

form single unit which is installed by bolting unit down, connecting piping and power connections. Statically balanced, single-suction type impeller is threaded directly on extended motor shaft, is additionally secured by stainless steel jam nut. Casing vertically split for easy inspection and maintenance without disturbing piping connections. Eight-position discharge nozzle. Mechanical seal protected against running dry, does not bind shaft, requires no adjustment and is easily replaced.

Circle No. 150 on Reader Service Card

Open End Wrench

Product: Plattina self-adjusting open end wrench which automatically adjusts its jaw size.



National Distributor: Fuller & Hellman, Inc., Moro, Ore.

Features: Jaws will handle any

A longer-life line!

The valve that has all the inherent rugged qualities needed for tough, in-line, use. You'll find that the construction—from the precision internal parts to the husky brass body—will serve you best under all conditions.



Metal-to-metal backseat

Operates under normal pressure, in reverse flow

Multiple metal diaphragms

Silver solder without removing internal assembly

"Suprex" long wearing seat insert

Your line is as efficient as the valve you use . . . remember to ask your wholesaler for Superior Line Valves

Superior

valve and fittings co.

Pittsburgh 26, Pa.

Circle No. 66 on Reader Service Card



nut from $\frac{1}{4}$ to $1\frac{1}{4}$ ". Ratchet-like action simplifies use in tight places. Head of the wrench rotates approximately 130 degrees on the end of the handle. Knurled jaws open or close depending on direction of turn.

Circle No. 151 on Reader Service Card



Manufacturer: McCabe-Powers Auto Body Co., St. Louis, Mo.

Features: Available in 74 and 84" lengths, can be mounted in a few minutes using only a drill and wrench. Compartments shipped in pairs, completely painted inside and

Tool & Material Compartments

Product: "Service-Twins", tool and material compartments for $\frac{1}{2}$ and $\frac{3}{4}$ -ton pick-up trucks.

out. Medium-dark green finish baked on synthetic enamel that resists rust and chipping. Parts bins with removable dividers are provided for each compartment as standard equipment. Double-panel compartment doors are completely weathertight. Slam action catches are recessed for safety and appearance. Cylinder locks on each door are keyed alike for convenience. Overhead rack with adjustable ladder brackets is optional.

Circle No. 152 on Reader Service Card

"Keep Cool with ESTON!"



METHYL CHLORIDE • SULFUR DIOXIDE

Distributor of "Kinetic" Chemicals' "Freon" refrigerants

"FREON 11"—"FREON 12"—"FREON 21"

"FREON 22"—"FREON 113"—"FREON 114"
In Standard Containers

ESTON Refrigerants
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CHARGE-A-CAN
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with "Freon 12"—"Freon 114"
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American Potash & Chemical Corporation

3100 East 26th Street, Los Angeles 23 • 60 East 42nd Street, New York 17

SALES OFFICES IN ALL PRINCIPAL TRADING AREAS



Circle No. 67 on Reader Service Card

Ice Cube Maker

Product: "Electric Iceman" newly designed ice cube maker.

Distributor: Ajax Corp. of America, Evansville, Ind.

Manufacturer: Servel, Inc.

Features: Produces up to 350 lbs. of ice cubes per day. Wastes less



than 10 gal. of water during complete 24-hour operation. Ice cubes frozen in individual compartments, assuring identical size, shape. Cubes drop into heavily insulated, waist high storage bin. Unit finished in blue-gray hammerloid, requires less than 1 sq. yd. of floor space.

Circle No. 153 on Reader Service Card

Automatic Alarm System

Product: "Thermo-Alarm" self-contained automatic alarm for 24-hour maintenance of safe temperature range in refrigerators, freezers, etc.

Manufacturer: Mack Electric Devices Inc., Wyncote, Pa.

Features: Alarm instantly sounds warning buzzer when unsafe temperature limits are reached, permit-

ting condition to be corrected before material and equipment are ruined. Unit plugs into any 110-115



volt a.c. 60-cycle outlet, is installed with one screw. Consists of thermostat enclosed in hermetically-sealed, frost free tube which is placed in cabinet or near material to be protected. Switch turns buzzer off when repairs are being made. Operating mechanism contained in metal box, 3 x 3 x 5 $\frac{3}{4}$ ". Thermostats factory calibrated from zero to 50F or to specified temperatures for special applications from -10F to 300F.

Circle No. 154 on Reader Service Card

Three Air Conditioning Units

Product: "Stowaway" and "Flat-Top" package cooling units for adding to existing warm air heating system and Model GAY2 All-season "Aire-Flo" conditioners.



Manufacturer: Lennox Furnace Co., Marshalltown, Iowa.

Features: "Stowaway" unit installed in horizontal air flow, "Flat-Top" unit installed in vertical air flow. Both available in 2 and 3-ton capacities. "Stowaway" size in both ca-

pacities is 18 $\frac{1}{2}$ " high, 40" long, 24" wide. "Flat-Top" size in both capacities is 15 $\frac{1}{2}$ " high, 27" wide, 34 $\frac{1}{2}$ " long. Aire-Flo air conditioner (illustrated) line available in 7 models. Gas heating ranges from 80,000 to 200,000 Btu/hr. Capacities of 3, 4 $\frac{1}{2}$ and 6 tons. Unit has two stage cooling, quiet operation, hammock type filter, floating blower and compact design. Over-all size is 72 $\frac{1}{2}$ " high, 52 $\frac{1}{2}$ " wide, 41 $\frac{1}{2}$ " deep, no clearance required at sides, rear or floor.

Circle No. 155 on Reader Service Card

Centrifugal Pumps

Product: Model B small close-coupled motor-driven centrifugal pumps.



Manufacturer: Carver Pump Co., Muscatine, Iowa.

Features: Made in two sizes: 1"

"Sorry, Joe. I don't lend my tools to anybody."



"Nothing personal, understand. But you should have learned long ago to build your kit around good tools.

Look at those Bonney tools of mine. Cost less than you think, and for my dough the best any mechanic can buy.

If you're short of cash right now, get yourself some BON-E-CON* wrenches. They're real mechanics' tools with the regular Bonney guarantee, and priced so that an apprentice can afford them.

With those as a starter, before you know it you'll build up to a kit like mine."

BONNEY TOOLS



* The new Bonney economy-priced line

Remember. Your local Bonney jobber, as well as Bonney, stands behind the tools you buy. He has Bonney tools priced to fit your needs as well as your pocketbook.

BONNEY FORGE & TOOL WORKS • ALLENTOWN • PENNSYLVANIA

Circle No. 68 on Reader Service Card

and 1 1/4" discharge, will pump up to 70 gpm at heads up to 110 ft. Designed for integral parts of air conditioning units, cooling towers, hot water circulators, etc. Pumps incorporate mechanical shaft seals, stainless steel shafts, enclosed bronze impellers and heavy duty ball bearings. Pumps close-coupled to continuous-duty jet pump motors. Pumps are part of a line of centrifugal pumps available in capacities up to 4000 gpm and pressures up to 125 lbs.

Circle No. 156 on Reader Service Card

Wall Refrigerator

Product: Models RD-82 and RD-42 wall refrigerators for full-view displays of dairy products or beverages.



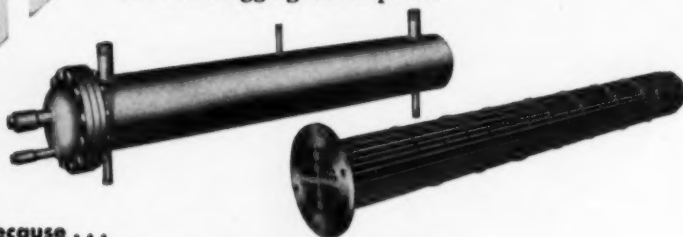
Manufacturer: Warren Co., Inc., Atlanta, Ga.

Features: Sliding aluminum door frames, glazed with Thermopane. Lighted by cool-white vertical fluorescent lights. Infrared-ray baked, extra heavy duty wire shelves take heaviest of loads. Finish has stood 1200 salt-spray hours test. Genuine porcelain exterior and interior is acid resistant to eliminate food stains.

Circle No. 157 on Reader Service Card

BETTER COOLING with **Taco** "CONTROLLED VELOCITY" CHILLERS

1. Improved heat transfer
2. Rapid response to Thermal Expansion Valve
3. No oil logging and slop over



Because . . .

Taco's "Controlled Velocity" Tube Bundles . . .

Carry *all* incoming liquid to the top of the Chiller in the first pass.
Provide constant forward movement of *all* refrigerant and oil.
Prevent accumulation of liquid (refrigerant or oil) in any part of the Chiller.

And because . . .

Taco's "Controlled Velocity" Heads . . .

Agitate oil and liquid refrigerant, at each head pass, with a constant stream of expanding gas.
Provide unretarded flow of refrigerant.
Eliminate "traps" for oil and liquid refrigerant.



For full information and Taco's "pin-point" Selection Charts, write for Bulletin CWF.

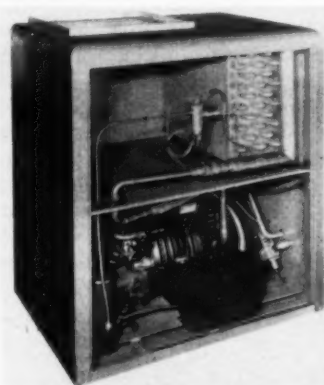
137 SOUTH STREET

PROVIDENCE 3, R. I.

Circle No. 77 on Reader Service Card

Package Home Air Conditioner

Product: Package type home air conditioner designed to connect to hot air furnace using regular furnace blower.



Manufacturer: Schnacke, Inc., Evansville, Ind.

Features: Offered in 3 and 5-ton sizes for installation in homes from 5 to 8 rooms. Both size units use same cabinet but either single phase or three phase electrical operation is available. Models were subjected to extensive field tests during the record heat of the 1952 summer months. Units are being sold only through regular air conditioning and heating contractors for installation in existing construction. They are not sold to speculative builders or to other manufacturers.

Circle No. 158 on Reader Service Card

Wall Case

Product: New models of sliding door wall case.

Manufacturer: Jordon Refrigerator Co., Philadelphia, Pa.

Features: For installations in bakeries, taverns, beverage outlets, delicatessens and similar locations. Available with sliding glass or solid

a BIRD



in the HAND...

● ● ● A TUBE OF KNOWN QUALITY is the all-important factor in reaching top production peaks. Penn tubing has held the title of 'constant quality' for over a quarter of a century. Carefully inspected to detect any flaws or impurities which might hinder production or cause rejections, Penn tubing nets greater output and gains a point for your side.

You can depend on Penn for *first* quality—for installations that are right the *first* time. Take advantage of Penn's knowledge and experience in helping you choose the right type of tubing for your needs.

Write for new specification literature and send along your tubing problems—Penn is always ready to serve. You need *first quality* tubing to make production soar—you need PENN.



QUALITY TUBING HAS A "PENN NAME"

PENN BRASS & COPPER COMPANY

ERIE • PENNSYLVANIA • TELEPHONE 3-1164

Circle No. 70 on Reader Service Card

doors on white or stainless steel exteriors. For refrigeration or display of product. New model has "Plastron" door frame which is non conductor, and eliminates condensation. Doors on roller bearings. Efficient ceiling-mounted blower coil.

Circle No. 159 on Reader Service Card

New Air Conditioner Line

Product: Five window-type models and two air cooled consoles, ranging in size from 1/3 to 1 1/2 hp.

Manufacturer: RCA Victor Div., Radio Corp. of America, Camden, N.J.

Features: Designed to perform three basic functions—clean, cool, and circulate air to all parts of room. Window-type unit motors are permanently lubricated, require no attention from owners. Adjustable grille covers entire face of unit. Lift-top for replacement of filter. "Thirty-three" model of 1/3 hp has 4175 Btu capacity, is capable of removing 15 quarts moisture in 24 hours. Ther-

mostat optional. The "Fifty" of 1/2 hp, has 6050 Btu capacity, removes 21 quarts every 24 hours. Two 3/4-hp models, the standard "Seventy-Five" and "Deluxe Seventy-Five", have 9010 Btu capacity and remove



30 quarts each 24 hours. Thermostat optional on standard model, is built-in on deluxe. "One-Hundred" model with 1 hp, has 10,650 Btu capacity, removes 37 quarts during 24 hours. Finished in "phantom gray" which blends with room interiors. "Console One-Hundred", with 1 hp, has 10,600 Btu capacity and removes 40 quarts of moisture every day. The "Console One-Fifty", of 1 1/2 hp, has 15,500 Btu capacity and moisture removal capacity of 51 quarts. Console units housed in wood cabinets of contemporary design in mahogany or blond. For commercial installations consoles made of steel.

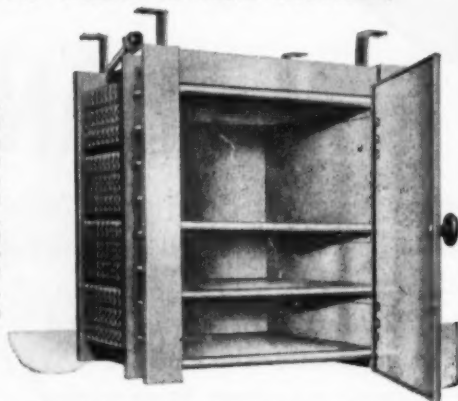
Circle No. 160 on Reader Service Card

**"some combinations
can't be beat!"**



Tenney KWIK-FREEZE ICE MAKER

Tenney Kwik-Freeze Ice Makers produce ice in 120 minutes, or less, and are designed for replacement of ice trays with pans for food storage at will. Quality construction with entire body rigidly fabricated from polished aluminum, with enclosed back plate. Finned booster coils and wrapped shelf tubing is electro-tin-plated for protection of food, and prevention of electrolytic action of copper and aluminum. Frozen food compartment with door can be supplied.



It takes a combination—a well integrated Tenney team of top engineering and practical application of the lessons of experience—to produce the most efficient and durable refrigeration equipment. This Tenney KWIK-FREEZE Ice Maker, for example, embodies years of design research and manufacturing experience in the refrigeration field. This experience, combined with top flight engineering methods, is your guarantee of complete satisfaction.

That's why, for either standard or special installations, it pays to "take it to Tenney."

**SERVICEMEN
CONTRACTORS,
JOBBER,
ENGINEERS**

Tenney brings you the advantages of advanced engineering and manufacturing facilities to handle any and every refrigeration problem, for the Tenney line is built to suit your needs. Outline your problem, and let us prove that a Tenney unit will solve it.

8476



Engineering, Incorporated

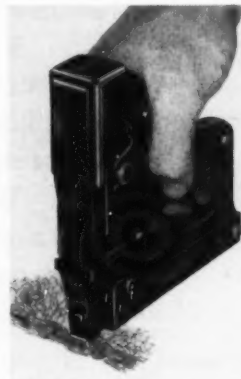
Dept. F 26 Avenue B, Newark 5, New Jersey

Engineers and Manufacturers of Refrigeration and Automatic Environmental Test Equipment

Circle No. 71 on Reader Service Card

Stapling Tacker

Product: Outward-Clinch T5 stapling tacker for driving and



clinch staples in places where it is impossible to insert a blade to clinch the staple.

Manufacturer: Bostitch, West-erly, R. I.

Features: Variation of standard

model T5, fastener automatically drives staples and turns legs outward to clinch under or inside work. Specially adaptable for installing insulation around pipes and ducts in air conditioning and refrigerating systems. Can be used anywhere, no matter how far from edge since no clinching by hand is needed. Simplifies and speeds up fastening problems.

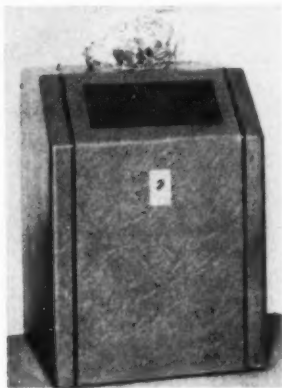
Circle No. 161 on Reader Service Card

Water-Cooled Console

Product: New "Roomaster" water-cooled air conditioner for rooms and offices without windows or with casement window construction.

Manufacturer: Ajax Corp. of America, Evansville, Ind.

Features: $\frac{3}{4}$ -hp unit is just 28" high, 20" wide and 19" deep. Designed to give complete cooling for



average-sized inside rooms such as a doctor's reception room. Competitively priced with similar capacity window-type units. Mounted on wheels to permit easy storage during off seasons when air conditioning is not needed. Finished in brown U.S. Royalite.

Circle No. 162 on Reader Service Card

Home Upright Freezer

Product: "Twin-Door" upright home freezer.

Manufacturer: McCray Refrigerator Co., Inc., Kendallville, Ind.

Features: Unit has 20-cu. ft. capacity, holds 725 lbs. of frozen food. Two flush type doors open independently of each other, "Koldflo" shelves permit circulation of refrigerated air throughout entire freezer space. All

cold surfaces are inside box. Thick layer of heavy density Fiberglas insulation surrounds cabinet. Thermal units around each door eliminate frost build-up on doors. Steel "bow spring" constructed within each door stops warps, sags or binding. Edge mounted, chrome plated bronze hardware, positive action chrome plated latches available with built-in cylinder locks and key. Freezers will be distributed by McCray and its subsidiary, Palmer Mfg. Co., Phoenix, Ariz.

Circle No. 163 on Reader Service Card

Air Conditioner Line

Product: Three models of "Decorator" window-type air conditioners, can be covered in any fabric to match or blend with curtains, draperies, floor coverings or upholstery.

Manufacturer: International Harvester Co., Chicago, Ill.

Features: Models L-350, L-500 and L-750 of $\frac{1}{3}$, $\frac{1}{2}$ and $\frac{3}{4}$ hp, respectively, operate on a.c. current, 115 volts. An additional model, L-751, of $\frac{3}{4}$ hp operates on 230-volt current. Models have removable spun glass filters, are powered by "Tight-

ROTARY SEAL

Replacement Units

**AT ALL
LEADING
JOBBER**

*Easy to Install
Efficient in Operation
Simple in Construction
Economical*

For Commercial, Semi-Commercial, Air Conditioning, and Household Refrigerator Compressors . . . over 20 years of performance proof . . . Units available for all standard makes.

**AVAILABLE
FOR MORE THAN
900
COMPRESSOR MODELS**

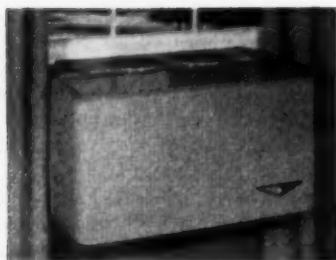
"Seal with

Certainty!"

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CHICAGO 14, ILLINOIS, U.S.A.**

CANADIAN AGENT: 2025 ADDINGTON AVENUE
MONTREAL 28, QUEBEC, CANADA

Circle No. 72 on Reader Service Card



Wad" refrigerating unit. The $\frac{1}{2}$ and $\frac{3}{4}$ -hp models have air intakes at bottom of unit and two circular, adjustable grilles at the top for air out-

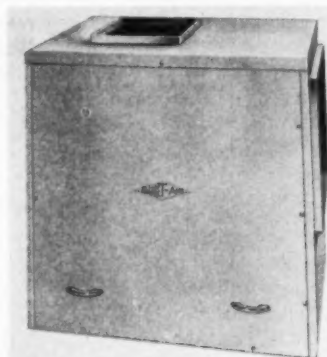
let. The $\frac{3}{4}$ -hp unit has air intakes at the side and across-the-top air outlet. All fan motors are in the shell outside the building reducing heat and operating noise. Both $\frac{1}{2}$ and $\frac{3}{4}$ -units have outside air dampers to control outside air coming into the room. All models can be fan operated.

Circle No. 164 on Reader Service Card

Packaged Home Cooling Unit

Product: Model HA-3 completely packaged home cooling unit, design-

ed for use in conjunction with a warm air furnace, can be adapted to any type or make furnace.



Manufacturer: Quiet-Air Mfg. Div., Abco Refrigeration Supply Co., New York, N. Y.

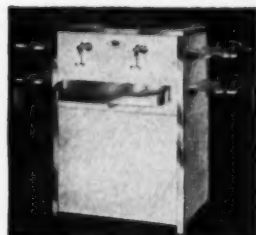
Features: Units of 2 and 3-hp are available at a cost of less than \$500 for average new home installation. Available with its own blower, unit may be installed in homes with hot water or steam heating systems, or where no heat is required. Hermetically sealed unit carries five year warranty. Completely self-contained, entire unit takes less than 5 sq. ft. of floor space, stands less than 3 ft. high.

Circle No. 165 on Reader Service Card

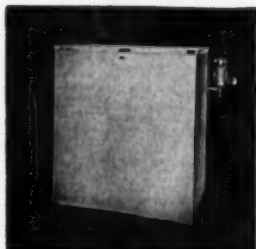
For Recognized Quality - Extra Gallons

Sell Your Condensing Unit

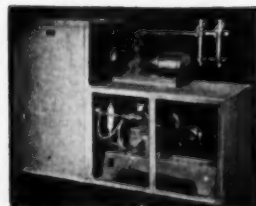
- Filtrine Water Coolers



Mess Hall-Cafeteria Cooler



Photographic-X-ray Cooler



Typical "Packaged" Circulating Chilled Water System

Promote your own condensing unit sales with Filtrine's 20-year-life construction...high capacity... Super Storage... more than 40 years' dependability.

COOLERS FOR MESS HALLS - CAFETERIAS

Conform with Fed. Spec. 00-C-566b

COOLERS FOR X-RAY & PHOTOGRAPHY

PACKAGED CIRCULATING CHILLED WATER SYSTEMS

REMOTE COOLERS FOR ALL USES

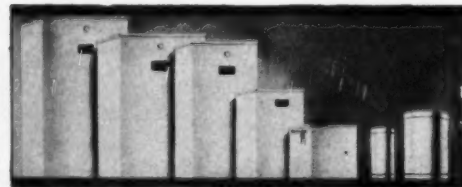
Sell your condensing unit with Filtrine Stainless Steel or Duco finished cabinets, equipped to suit with top/side shelves, bubblers, glass-fillers. Can be Taste-Master equipped to remove chlorine, rust, sediment from water.



Taste-Master

Sell your condensing unit with Filtrine models repeatedly named by V.A., Signal Corps, Air Force, etc. for X-ray, and photo-labs. Under counter design and floor-mounted models with stainless steel work-table top. Filters (extra) to prevent scratched and pin-holed negatives.

Sell your condensing unit! Systems for drinking or processing water—completely packaged with pump, controls, your condensing unit factory installed. Capacities 5—400 g.p.h.; storage 5—150 gals. Filters and Rectifier-Dechlorinators (extra) to insure taste-free, sparkling water.



Remote Model Coolers

Sell your condensing unit with remote models for new and replacement jobs—all applications. Capacities 10—1000 g.p.h.; storage 7—300 gals. Filters, Rectifier-Dechlorinators available for all sizes.



Write for Catalog and Specification Guide

FILTRINE MANUFACTURING COMPANY • BROOKLYN 5 • N. Y.

"Water Coolers and Filters for 40 Years"

Circle No. 76 on Reader Service Card

Small Service Light

Product: "Browlite" small lamp that fastens to the head for direct illumination while both hands are occupied.



Manufacturer: Research Products, Boston, Mass.

Features: Fits on the head like an additional pair of glasses above the eyes and out of the way of eyeglasses, if any. Both hands can be free to work in dark, enclosed places where previously one hand would

have had to hold a flashlight or similar handy light. Made of durable plastic in brown, red or black. Furnished with pencil sized batteries and bulb.

Circle No. 166 on Reader Service Card

Home Conditioner

Product: New residential air air conditioner.

Manufacturer: Frigidaire Div., General Motors Corp., Dayton, Ohio.

Features: Compact unit designed for installation in new or existing homes of six to eight rooms having forced air heating system. Normally placed alongside furnace and connected to existing ductwork. Room thermostat provides automatic cooling temperature control, manual



switch for heating-cooling selection. Complete cooling, dehumidifying, filtering and circulating facilities. Capacity of 3 and 5 tons. Unit 36" wide, 44" deep and 50" high, housed in sheet metal cabinet finished in gray lacquer. Snap-on type panels provides access to all parts. Water cooled XD "Meter-Miser" sealed reciprocating compressor with 5 year warranty. Water, electrical, duct and drain are sole connections necessary.

Circle No. 167 on Reader Service Card

Chemical Dessicant

Product: "Permagran" dessicant, signifying permanent granules as a principal characteristic, for drying at high liquid line temperatures.

Manufacturer: McIntire Connector Co., Livingston, N. J.

Features: Dessicant has stood up under extensive field tests in various refrigeration systems under large quantities of water, extreme acid conditions, liquid additives and high

liquid line temperatures. Consists of anhydrous calcium sulfate, specially processed by patented method which hardens each individual granule to high degree, while maintaining high absorption qualities. Dessicant is supplied in driers and moisture control units produced by the manufacturer. Various uniform mesh sizes of "Permagran" are used, according to drier size.

Circle No. 168 on Reader Service Card

Self-Bonding Adhesives

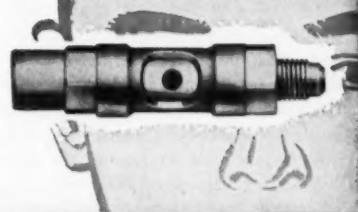
Product: "Black-Magic" and "Brite-Magic" glues for sealing joints around window air conditioners.

Manufacturer: Miracle Adhesives Corp., New York, N.Y.

Features: Available in either 1 3/4 or 5 oz. tubes, for heavy duty jobs as cementing rubber gaskets on refrigerator doors. Seals water out of vulnerable areas, eliminates moisture damage. Glue is anti-corrosive, dielectric. Cuts like wood when dry, may be painted when dry. Requires no mixing. "Brite-Magic" available in white consistency.

Circle No. 169 on Reader Service Card

Circle No. 75 on Reader Service Card



LIQUID EYE[®]

on the Refrigerant Line means:

- Perfect refrigerant visibility
- Straight-through flow
- No turbulence
- Leak-proof
- Shock-proof
- Vibration-proof
- High safety factor
- Spring-loaded gaskets

Sold by Leading Wholesalers. Send for Catalog B-52 covering the complete Allin line.



Allin MANUFACTURING COMPANY

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For Eye-Level Readings...

AUTO-LITE



...TEMPERATURE INDICATION

Auto-Lite offers many thermometer styles, permitting plant-wide temperature observation at low cost. Standard temperature ranges from minus 60°F to plus 750°F. Send for latest catalog showing various types.

Model F-1 temperature indicator—Rigid stem or capillary tubing for EYE-LEVEL remote reading. Priced from \$22.

THE ELECTRIC AUTO-LITE COMPANY
INSTRUMENT AND GAUGE DIVISION
TOLEDO 1, OHIO
NEW YORK • CHICAGO • SARNIA, ONTARIO

TEMPERATURE INDICATORS & RECORDERS

Circle No. 74 on Reader Service Card

UNUSUAL PROBLEMS IN YMHA CONDITIONING JOB

One of the nation's most modern air-conditioning systems is approaching completion in the basement of the Bergen County YMHA building, Hackensack, N. J. with the basement being completely revamped without interfering with the two floors above.

Heading the \$100,000 renovation job are L. Freeland Fellgraff of Ridgefield Park as architect, Melvin W. Gelber of Hackensack as engineer, and Frank Hudik of Hackensack, president of Comfortair Co. and

S.O.S. Sheet Metal Co., specialists in the air-conditioning and ductwork fields. The work is to be completed by Jan. 1.

Because the new YMHA basement will be a complete health treatment center, problems unusual in air-conditioning design cropped up. No air will be recirculated; all the air supplied will be fresh from outdoors. This, said Hudik, was required by the limited space of 5000 square feet in the basement, into which many rooms must be fitted, and the extremely limited space for ductwork and equip-

ment, which would have been large and bulky if required to reheat and deodorize the return air from card room, snack bar, showers, exercise room, locker rooms, steam room, dry-hot room and hydrotherapy.

There was already complication enough in the fact that patrons are dressed in one part of the health center, undressed in another, requiring the warm-supply to go out at two temperatures to two different zones.

For summer cooling, Comfortair installed equipment which will chill the air to wring out a large proportion of its moisture, then partly reheat it to two different temperatures for the dressed and undressed zones.

This air must be supplied unusually dry to compensate for excess humidity created in the health center. One result of this problem is that Hudik's air-conditioning unit—15-ton rating with a 15 horsepower motor, capable of freezing 15 tons of ice in 24 hours—had to be designed to supply 2400 cubic feet of air per minute in summer, compared with 1800 in winter.

Arranging the ductwork and equipment for all that, without crowding the many essential rooms, was a problem not only for Fellgraff and Gelber but for Hudik and the other mechanical engineers on his staff.

Refrigeration Breakdowns During Warranty Periods are Responsible for Millions of Dollars Lost Each Year by Service Contractors

HOW many dollars do you figure to cover the warranty period of a new installation or repair job? How many times have you figured wrong? How many nuisance calls do you get on — loose belts, overloads cutting out and overheating on peak loads? How many times have you had major breakdowns during the warranty period such as — stuck or seizing motors and compressors? How many times have you removed new expansion valves, new temperature and solenoid valves because they were not functioning properly? Have you ever said, "I'd have a darn good business if not for these repeat calls." No doubt you buy what you believe to be the best parts in the industry, such as highalides, motors, valves, lubricating oils, dehydrators and etc. You go through considerable expense to cut down the number of these calls during the warranty periods. At the end of the year when you check back on your job records and you find that your calls were cut down 5% or 10% on warranty work you feel that you have won a major victory. You have saved money, but more important is the fact that your customers are satisfied.

I say that 5% or 10% is peanuts compared to what you can really save on repeat calls. By investing the cost of a flare nut to your installation costs and repairs you will save thousands of dollars each year.

I know what "Addit 88" can do, and so do thousands of skeptics who have tried it and "given it the works." They have used it where the damage was already done and "Addit 88" proved more than it's worth by remedying conditions which were thought impossible to repair without major tear-downs. "Addit 88" is, as you know, the first oil additive marketed in the history of refrigeration for independent service contractors.

Most users of "Addit 88" are freeing compressors that are seizing, and pumps that are stuck. They are remedying situations such as sticky valves and frozen bearings on blowers and compressors. But why close the door when the horse has run out? I know that "Addit 88" can do all this and more but I did not intend to market it as a cure. I tell you that "Addit 88" is best used as a preventative measure, and you will find it business wise not to wait for trouble but to prevent it from happening. Proof? If it's proof you want, well, do as I say — add "Addit 88" to every installation and repair job . . . At the end of one year look back on your records and see the difference between the additional costs of maintenance before and after you started using "Addit 88." Maybe you will strain your eyes a little reading this, or possibly my sales talk will be good enough to convince you to start using "Addit 88." At any rate, I've shown you a method whereby you can save thousands of dollars a year, the rest is up to you. Now is your chance to make some real money on your maintenance contracts.

We know refrigeration contractors who are using "Addit 88" in washing machine repairs, in their private airplanes, automobiles and other types of machinery. This amazing product has been a long time in coming and now that it's here — don't pass up the opportunity to convince yourself. When you walk into your jobber ask him for a bottle of "Addit 88." Ask him what the other fellows are saying about it.

HENRY EHRENS, President

SEALED UNIT PARTS CO., INC.

261 East 161st Street

New York 51, N. Y.

TENNEY ENGINEERING BUILDS NEW TEST LAB

A complete new laboratory is now being constructed by Tenney Engineering, Inc., to expand the company's facilities for the testing of refrigeration equipment. When completed, this laboratory will be the focal point of all new designs for future Tenney products.

The new test facilities will be under the direction of David B. Zipser, newly appointed chief engineer of the company's refrigeration division.

Zipser's background for this responsibility includes a B.S. degree in chemistry and an M. S. in chemical engineering from Worcester Polytechnic Institute. He also spent two years as an instructor at that institution.

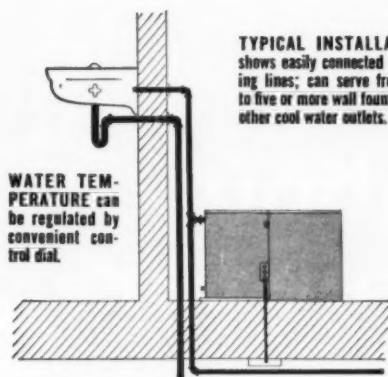
He is a member of the American Society of Refrigerating Engineers and represented the Refrigeration Equipment Manufacturers Association on the joint coil committee which is preparing standards for refrigeration air coolers.

Circle No. 73 on Reader Service Card

THE GREAT NEW
Temprite
 REMOTE PACKAGED
 TYPE WATER COOLERS
 offer you . . .

GIGANTIC

SALES POTENTIALS!



TYPICAL INSTALLATION
 shows easily connected plumbing lines; can serve from one to five or more wall fountains or other cool water outlets.

WATER TEMPERATURE can be regulated by convenient control dial.



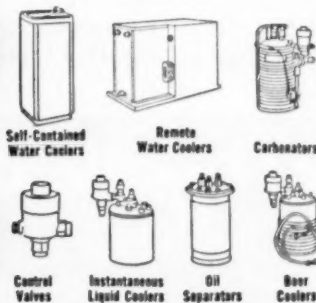
AVAILABLE IN 3, 5 or 10 gallon capacities. All models approved by Underwriters'.

INSTALL THE GREAT new Temprite, remote packaged type water cooler in practically any and every location . . . wherever cool water is needed! Mount from wall brackets in factory locations and save valuable floor space! Use to replace old deteriorated central systems and save costly major plumbing alterations! Designed for economical installation in offices, schools, motels, gasoline stations, institutions, roadside drive-ins; for

glass filling stations in restaurants, bars, cafeterias, for home use in recreation rooms, etc.

Install the Temprite in many liquid cooling applications, such as light duty commercial or industrial work . . . photographic and X-ray development . . . for lab experiments . . . for roll or jacket cooling . . . for cooling light oils, some chemicals, etc.

The Temprite cooler offers you gigantic sales potentials!



TEMPRITE PRODUCTS CORP.
 P.O. Box 72-B, East Maple Rd.
 Birmingham, Michigan

☐ Send me data on remote type coolers.
☐ I am interested in a franchise to distribute Temprite water coolers.

Name _____

Address _____ Zone _____

City _____ State _____

Circle No. 69 on Reader Service Card

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PEACHES 28¢ LARGE PEACHES 25¢ LARGE PEACHES 1/2 64¢	FRENCH GREEN BEANS 2¢ CUT CORN 28¢ MIXED VEGETABLES 29¢	GREEN BEANS 25¢ WAX BEANS 2¢ ASPARAGUS SPEARS 45¢ ASPARAGUS CUTS 1¢	BLACKBERRIES 64¢ TWO-OLD BERRIES 50¢ MIXED FRUITS 5¢	RASPBERRIES 36¢ RASPBERRIES 36¢ RASPBERRIES 36¢
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THE COMMERCIAL REFRIGERATION and AIR CONDITIONING

APPLICATIONS MANUAL

by William M. Brewer

Problems discussed in the Applications Manual are being written by William M. Brewer, vice president in charge of engineering, Refrigeration Sales Corp., Cleveland. Brewer, a registered professional engineer in the state of Ohio, will draw on his own personal experience in describing typical application problems encountered in the contracting field, and in answering questions sent in by our readers. We invite readers to submit their problems to this department. Each letter of inquiry will be answered personally by the author. All problems should be clearly and completely stated and addressed to: **COMMERCIAL REFRIGERATION AND AIR CONDITIONING, Manual Dept., 1240 Ontario St., Cleveland 13, Ohio.**

PROBLEM

"SICK" jobs in the refrigeration and air conditioning business have always been a real problem to many contractors and service organizations. It is safe to say that the profit on a good yearly volume often has been eaten up by several—or even one—"ailing" installations.

If careful engineering analysis indicates that compressor, condenser, evaporators, and air volume are of sufficient capacity to handle the load, and are in proper balance to each other, then look for the trouble in the refrigeration piping.

Improper suction piping of single condensing unit installations is often the cause of such "sick" jobs. Therefore, we will point out some simple basic con-

siderations in design of suction piping for installations using Freon-12.

As an illustration, we were called in on an existing installation and asked by the owner to quote on replacing the compressor which had been a continual source of trouble for several years due to mechanical failure and the inability to handle the load. The original installer had spent a great deal of time and money continually replacing seals and valve plates without correcting the cause.

The owner naturally condemned the manufacturer of the compressor and in desperation decided to buy a "good" compressor. The original unit was a nationally known make of good design with an automatic capacity reduction feature of 3 steps to $\frac{1}{3}$ total capacity.

An investigation showed that the condensing unit was serving two direct expansion coils in a fan plenum chamber. The coils were of sufficient size for the cooling load and the compressor.

Further investigation, however, showed that the suction piping was of poor design, and immediately indicated the trouble. The owner substantiated this by stating that oil leaving the crankcase had always been a problem and that the compressor never seemed to operate fully loaded.

A simple diagrammatic sketch of the original suction piping is shown in Fig. 1.

The suction riser was the same size as the horizontal suction line to the compressor and had been picked for the minimum pressure drop when the compressor was working at full capacity. This was the cause of the oil return problem.

When the compressor operated at re-

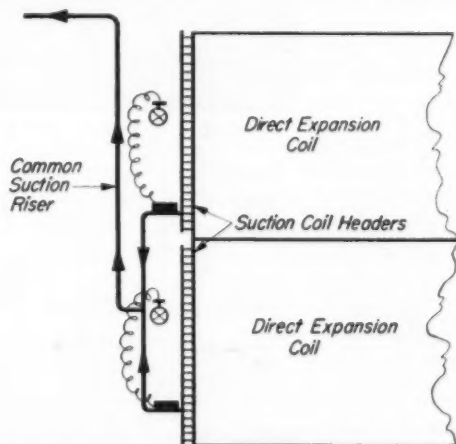


FIG. 1—Wrong way of running suction piping for 1-compressor, 2-coil job.

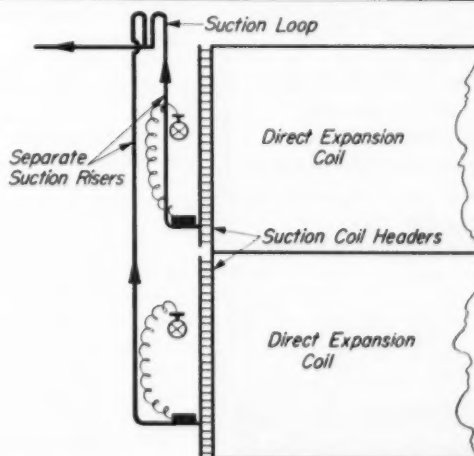


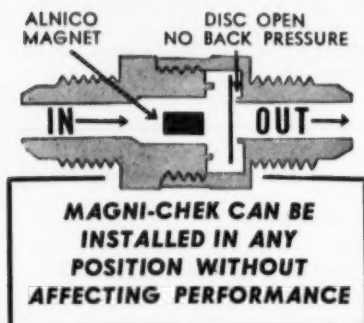
FIG. 2—Right way to handle suction piping for this same installation.

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106

duced capacity, the velocity of the Freon gas was too low to carry the oil up the riser. Therefore, the oil would collect in the lower coil instead of returning to the crankcase of the compressor.

This resulted in gradual failure of the lubricating system, causing damage to the rods, bearings, and seals. Also, with the oil in the coils during the off cycle, when the compressor was started up under full load conditions the oil would come back to the compressor in a rush and damage the valves.

The other weakness in this suction piping was that any slight over-feeding of the expansion valve for the top coil would allow liquid to fall to the thermal bulb of the expansion valve for the bottom coil, which would keep this valve shut, thus starving the bottom coil. This prevented the compressor from fully loading, which resulted in the low output capacity of the system.

SOLUTION

THE revision of the suction piping was simple, as is shown in Fig. 2.

First, it can be seen that separate suction risers were installed for each coil so that erratic valve action of one coil would not have a false effect on the other valve. In addition, the oil loops above the horizontal suction run were installed to prevent any "slop over" from one riser from going back down the other riser. This feature is particularly important if solenoid valves are installed for each coil, permitting only one coil on the line at one time.

The most important change in the suction piping, which cannot be seen in the diagram, was reducing the suction riser sizes.

First, the minimum tonnage that would pass through each riser was determined. In this case the compressor could automatically reduce to 1/3 its maximum capacity, which meant that under this condition 1/6 of the maximum capacity would pass through each suction riser.

With the minimum tonnage figure computed for each suction riser, it was merely a matter of referring to tables that are available from most large manufacturers to determine the maximum riser size that could be used and still maintain enough gas velocity to return the oil.

This simple piping change corrected all problems in this particular installation without changing the compressor.

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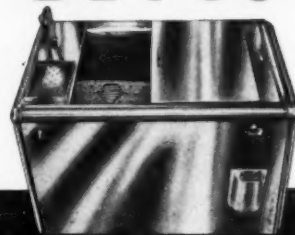
The Peerless Drip-Pump solves the troublesome drainage problem—on air conditioners, coolers, refrigerators and other machines where condensate is present—by eliminating hazardous gravity drains altogether! The Drip-Pump lifts condensate up and out, overhead . . . saves valuable space.

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But Virginia No. 10 is much more than a good degreaser. It has a dielectric strength of 20,000 volts. The significance of this is it will not attack electrical insulation or leave any current-carrying residues. Its flammability hazard is very low. And you can stand a concentration of 200 parts per million for hours without harm—it's about 8 times less toxic than carbon "tet."

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COMMERCIAL *Refrigerator* SALES NEWS

Pros and Cons of Lease-Purchase Deals Discussed By Banking Expert

*Conclusion of an address present-
ed by Kenneth R. Wells, vice
president, American National
Bank & Trust Co. of Chicago, at
the sixth annual convention of
the National Commercial Refrig-
erator Sales Association. First part
of this condensation appeared in
these columns last month.*

ONE of the current topics of dis-
cussion in all phases of install-
ment selling is the leasing of equip-
ment. There are several kinds of
leases.

Many years ago we had the type
of lease which on its face was labeled
"Lease Agreement", and yet if you
read the document carefully it was
actually a conditional sales contract,
as title was passed upon the payment
of a nominal sum after the rental
payments had been made for a cer-
tain period of time.

During the war there was devel-
oped, particularly in the construction
machinery field, a true lease to per-
mit the user of the equipment to
charge up the rental payments as ex-
pense. He would have a side agree-
ment with the seller giving him an
option to buy the equipment at a
reduced figure after rental payments
had been made for a certain number
of months. The seller usually treated
the transaction as a sale on his own
books and the buyer expensed it, so
that it disappeared completely from
the assets of each.

Under the income tax law the seller
technically should set up his rental
equipment in a separate account,
treat the rental payments as income
and charge expense for the normal
depreciation, which, of course, is
much less than the rental payment.

If the entire transaction is consum-
mated within the taxable year of the
seller, there is no particular problem,
but if it goes over into two taxable
years it can create income tax dif-
ficulties.

Peculiarly enough, the Internal
Revenue Department has never
probed too deeply into these deals
from all the information I have been
able to gather. I have had an ex-
planation of this to the effect that
they did not care what was done
when tax rates were increasing, as
they would catch up with the user
of the equipment in subsequent years
and eventually get more money than
if they had forced him to capitalize
the equipment in the year in which
he first used it.

If tax rates should decrease, then
those who have used the rental plan
would benefit because they would
have been able to charge the rental
payment to expense as a deduction
against a high tax rate. However,
the trend in rates has been the other
way.

Let us take a look at a rental
transaction as against a purchase
transaction.

Assuming that a piece of equip-
ment has a life of eight years and
the depreciation rate is on a level
basis for eight years, the company
would have 12½% of the value as
a tax deduction in each year for the
full eight years.

On the other hand, let us assume
they rent the equipment for a period
of four years, in which case they have
a 25% tax deduction for four years
and after that they have no tax de-
duction whatsoever. If the tax rate
is level, the net result at the end of
eight years is exactly the same

whether they rent or buy the equipment. If the tax rates should go up, as they have been doing, those who have rented equipment have actually lost by the process.

I believe there have been many misconceptions regarding the value of rental plans as compared with purchase plans. However, there is one other factor which cannot be overlooked. If the buyer is under-capitalized, it may be possible for him to get his equipment on a rental basis when he could not buy it. In your particular field I think you will agree that anyone who wants to buy can find someone who will sell. Therefore, I am unable to understand the demand for rental transactions, except for the fact that I am quite certain that the buyer has not thought through to the ultimate conclusion—that the end result in either case is about the same.

In summation, I pass on to you the thought that you should keep your terms on a sound basis, have adequate credit information and proper documentation. If you follow these basic principles you should be able to finance your sales and have good results.

JOHNSON NOW MAKING FOOD FREEZERS

Johnson Mfg. Co., Middletown, Conn., manufacturer of commercial, home and farm freezers, has acquired some 65,000 sq. ft. and has installed modern manufacturing facilities for production of freezers for "frozen food plan" operators and distributors. Officers are Joseph Silver, president; Mel Silver, secretary; Nelson S. Bloomenstein, general manager.

TOOHEY FIRM WILL DISTRIBUTE SCHAEFER

Electric Utilities Corp., Tulsa, has been appointed distributor of the complete line of Schaefer ice cream cabinets, frozen food cabinets and Pak-A-Way home freezers, it was announced by Elton F. Hess, sales manager for Schaefer, Inc. Offices, warehouse and display room will be at 800 East Archer St.

Francis L. Toohey is president of Electric Corp., which will cover Oklahoma and the Texas panhandle.



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THE HEATING OF AIR CONDITIONING SIDE

By Wm. Henry Knowlton

History of Early Residential Systems Shows Varying Results and Costs

UP to the present time this series of articles has been devoted to the presentation and solution of heating problems encountered in small commercial buildings. Due, however, to the current tremendous interest in residential air conditioning, which combines heating and cooling systems of various kinds, a review of some of the problems in this fast growing business during the height of the selling season seems advisable. It is apparent from the exhibits at recent trade shows that there will be plenty of residential air conditioning systems to sell, so the air conditioning contractor can "pay his money and take his choice."

By way of background information, one of the early residential air conditioning systems was installed in a home in Cleveland, Ohio, about 1931. The owner of this home believed in the future of air conditioning, and was willing to finance a test installation. (Undoubtedly earlier installations were made, but they did not come to our attention.)

This installation consisted of placing a direct expansion coil in the outlet side of an existing forced air furnace fan, and connecting the coil to a 1½-hp compressor. As the refrigerant used was methyl chloride, it was indeed fortunate that the system never leaked. A fire would have been disastrous.

In the interest of better air distribution, warm air outlets were moved up to the breathing line, about five feet from the floor, and equipped with diffusing grilles. Despite these

efforts, however, this system proved to be far from satisfactory.

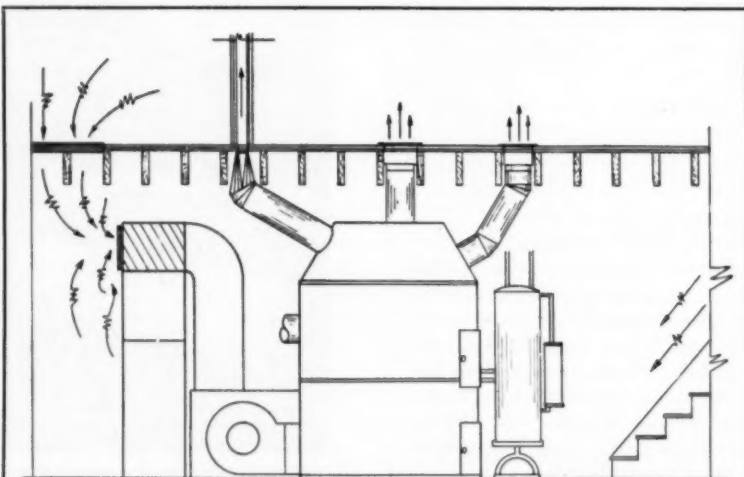
While a number of these direct expansion systems were installed in funeral homes and similar buildings located in residence-type structures, to the best of our knowledge no other residential cooling systems were installed in the Cleveland area that year.

The following year, 1932, saw the advent of Freon and the first Frigid-aire room cooling units. The first ½-ton unit sold in the Detroit area was purchased by a motion picture projectionist, who was seeking comfort for his crippled wife. He reasoned that as she was unable to go to a

cottage to escape the heat, he would bring the atmosphere of the north woods to her. Such reasoning is still responsible for a large number of residential air conditioning sales, even in very modest homes.

Over the next 10 years, considerable strides were made in the perfection of residential air conditioning systems, but the market remained limited. Packaged systems were developed which combined compressor and coil, and which was designed to use with an ordinary furnace fan.

Along about 1938 a system of this type was installed in the residence of a research engineer in Dayton,



TYPICAL "HITCH-ON" SYSTEM for residential cooling embodies a 3-hp air conditioner attached to a gravity warm air furnace through a furnace fan.



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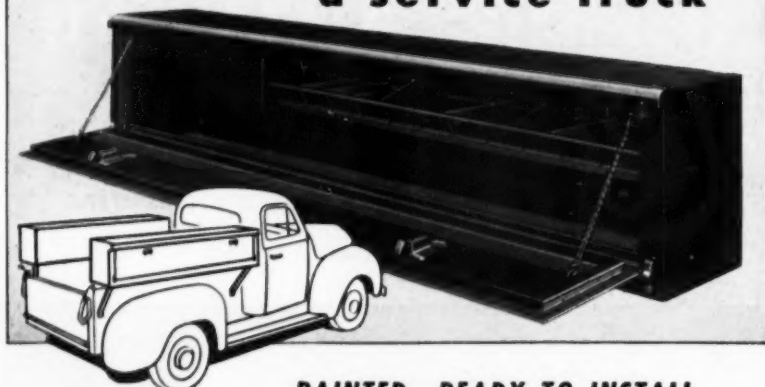
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Ohio. This man did not want anything fancy, so he connected a 3-hp packaged unit next to his stoker-fired warm air furnace.

All return ducts were removed from the basement, and return air was permitted to reach the basement plenum chamber through registers in the floor. Still more air came down the basement stairway.

This simple but inexpensive system kept the house very comfortable, and had the additional advantage of keeping the basement dry during hot, humid weather. The system was controlled with a humidistat, not with a thermostat, and no attempt was made to freeze the occupants. The result was continuous comfort for the family day and night.

Reheat Is Helpful

Naturally a system of this type can be greatly improved by the addition of a heating coil, making it possible to cool and dehumidify, and then re-heat the air. It is questionable however, in a similar situation, if the improved result would justify the expense involved.

Cost of installing the system was approximately \$25 for 220-volt electric service, about the same as the cost of wiring an electric range. At the time the installation was made, plumbing cost \$40, and the engineer made the simple duct connections himself. An examination of family utility bills at the end of the first cooling season indicated that the cost of water and electricity to cool the home would be in the neighborhood of \$20 per month.

Operating Costs Vary

Even lower operating costs were reported for a residence in Memphis. In this case a 3-hp summer air conditioning unit was supplemented by an attic fan, and the operating cost of the conditioner itself was approximately \$20 for electricity for the summer season. Condensing water for the unit was supplied from a deep well, and the availability of very cold water undoubtedly had a marked effect upon the operating cost of the system. The same system, using gas as fuel for winter heating, costs about \$75 per year.

Interviews with owners of air conditioned homes, and careful studies of utility records, reveal that little

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relationship exists between the size of the home and the cost of electricity for summer air conditioning. Studies of a number of representative installations made in 1944 reveal that electric costs and water costs for summer air conditioning will vary from \$20 to \$90 per year. Apparently, everything depends upon the habits of the family and their use of the air conditioning system.

Usage Is A Factor

To give an example of a case in point, a 5-hp air conditioning system installed in a palatial Indianapolis residence averaged only \$35 for electricity and \$20 for water over a three-year period—a total of \$55 per season. An interview with the owner disclosed that in accordance with long established custom the family spent over half the summer (and the hottest part at that) at their cottage. During this period the system was not in operation so the operating cost, as tabulated by the local utility were proportionately low.

In contrast to the above installation, further investigation disclosed that a very modest six-room residence located in the same city, and equipped with a 3-hp summer cooling system had an operating cost of \$52 for the same summer period. In this case the conditioning unit was allowed to run constantly, under thermostatic control for the entire summer.

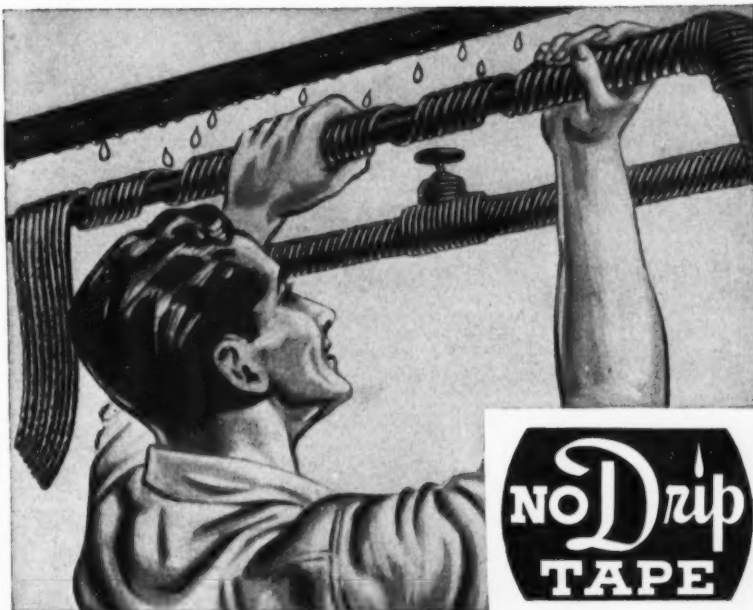
Utility Records Cited

Windows and doors were kept closed, as the entire family greatly enjoyed the benefits of controlled temperature, clean air, and lower relative humidity.

Utility records covering summer air conditioning systems installed in Columbus, Indiana homes, revealed costs of from \$35 per season to \$88 per season, even though the homes were almost the same size, and of similar construction.

Here again the habits of the family and the factor of usage entered into the picture. It was found that one family permitted the cooling system to operate under thermostatic control, while another attempted to cool the house off quickly, after all doors and windows had been opened for a number of hours during hot weather.

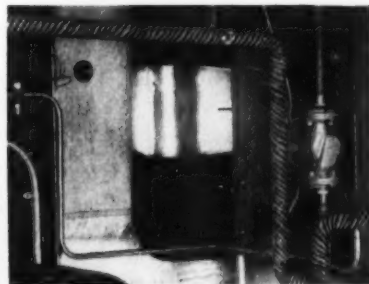
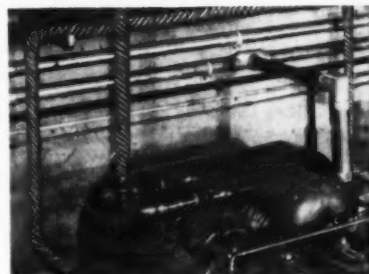
Interviews with owners of summer



STOPS CONDENSATION DRIP

Yes, indeed, it takes care of the vexatious drip problem connected with cold water pipe installations. NoDrip Tape is pliable, cork-filled, 2" wide. When wound around pipes, it forms a tight fitting, moisture-proof jacket. Holds temperatures steadier, eliminates icing and frosting, prevents rusting, keeps pipes and floors dry.

Just the thing for pipes and suction lines running from refrigerating machines to condensers.



Use on refrigerant lines in air conditioning systems, walk-in freezers, deep freezers and on basement cold water pipes.

EASY TO APPLY

You don't need tools, brads or experience to apply NoDrip Tape. Just wrap it around pipes and press into place with your hands. Anybody can do it. Try a roll on a short section of pipe and compare with uncovered portion.

EFFECTIVE IMMEDIATELY

Follow the easy application directions on the package and you'll be surprised at results. You'll not be bothered with drip any more.

CONTRACTORS—Include NoDrip Tape protection in your estimates to stop drip, preserve pipes and fittings and also for good appearance. NoDrip is brown in color, but can be painted any color with cold water paint.

Roll covers about 10 ft. of 1/2" i.d. iron pipe or 13 ft. of 1/2" o.d. copper tubing.

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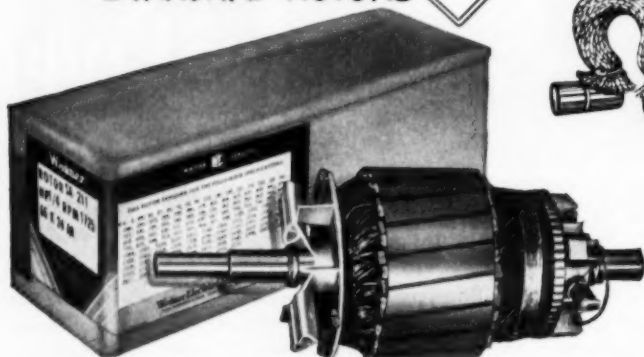
NoDrip Tape has been used for years on production lines of leading refrigeration equipment manufacturers. Investigate its many advantages.

Genuine Joe says:

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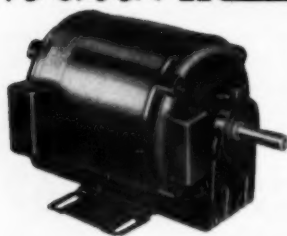
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Today—due to constantly rising labor costs—it usually costs you less to replace armatures in fractional hp. motors with Wagner Standard Rotors than to rewind the old ones. There's no guesswork involved—the “tell all” label on the Wagner Rotor Carton, used with the K and M “spec” lists, shows you the *right* replacement unit everytime. If necessary, the shaft can be removed from the standard armature and your special shaft used instead.

*it's also wise...and profitable
to stock **Wagner** replacement motors*



Carry a stock of Wagner motors—to replace motors “too far gone” for economical repair and for emergency use where your customer needs immediate service. You'll find it pays off—and you can often make a ready sale.

MS53-2

WAGNER ELECTRIC CORPORATION
6442 Plymouth Ave., St. Louis 14, Mo., U. S. A.

MOTORS · BEARINGS · STANDARD ROTORS
BRUSHES · CAPACITORS · COMMUTATORS

**OVER 750 AUTHORIZED SERVICE STATIONS
OR PARTS DISTRIBUTORS**

Circle No. 88 on Reader Service Card

air conditioning systems made during the summer of 1944 in Indianapolis disclosed that in certain cases too much was expected of the cooling system.

To cite a case in point, the owner and his wife worked all day, leaving the windows open during hot weather. They would come home at night, turn on the cooling system, and expect it to reduce the temperature in the house in a very short period of time—in fact, before dinner was ready.

Zone Cooling Used

Because of the structural heat load, this was not possible. Obviously, the cooling system, like any good heating system, was not designed to change the temperature and humidity conditions in the house in the short space of one hour. Operating costs were excessive and the desired results were not obtained.

The type of installation will also affect over-all operating cost. For example, cooling equipment installed in one large residence was arranged to cool one “zone” consisting of the first floor living rooms during the daytime, and another “zone” made up of the second floor bedrooms at night.

\$60 Per Year Is Average

An analysis of this system disclosed operating costs of \$40 per season, while similar equipment installed to serve all of the rooms in a modest seven room house operated for \$54 per season. Again, the owner of the larger zoned residence was away part of the summer and the owner of the small house used his system to the best advantage all through the cooling season.

This survey revealed that on the average the cost of operating a 3-hp summer air conditioning system was about \$60 per year. The great majority of owners were well pleased with the results obtained, and the few complaints received came from people who had not been instructed in the proper operation of the system, and were therefore inclined to expect too much of it.

**BUY FROM YOUR
REFRIGERATION WHOLESALER**

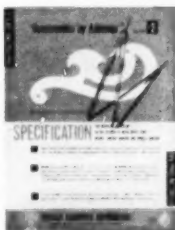
SAVE MAN HOURS USE MIRACLE ANCHOR METHOD



Ford Motor Corporation, Dynamometer Building, Dearborn, Michigan: Application of Rock Wool Batts by use of Miracle Anchors, bonded with Miracle Adhesive.

To attach insulation to ceilings and walls use Miracle Anchors and Adhesives. Eliminates drilling or welding.

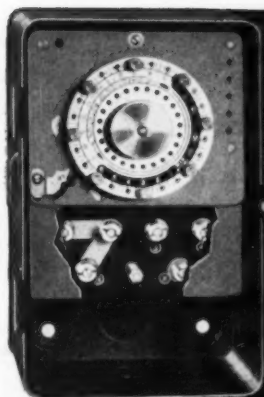
FREE: Send for colorful informative brochure on Miracle Anchors, which details savings in man hours and costs by use of the Miracle Anchor Method.



MIRACLE ADHESIVES CORPORATION

214 EAST 53RD STREET, NEW YORK 22, N. Y.
and all Principal Cities and Canada

Circle No. 90 on Reader Service Card
and **AIR CONDITIONING** • APRIL, 1953



300-NR Series Time Switches for compressor shut-down, electric heater defrosting, hot gas or reverse cycle applications.

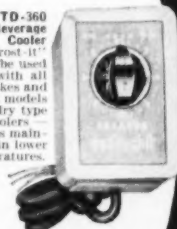
for accurate
dependable
defrosting time
switches

specify
paragon

Dependable, accurate defrosting is vital to good performance. That's why, for original equipment or for replacement, growing numbers of top-flight designers and service engineers demand Paragon defrosting time switches. That's why 96% of the commercial refrigeration manufacturers using automatic defrosting specify Paragon as standard equipment.

700 Series, 7-day calendar dial time switches provide individual program settings for each day in week.

TD-360 Beverage Cooler "de-frost-it" can be used with all makes and most models of dry type coolers - helps maintain lower temperatures.



Attic & Window Fan Timers



Dehumidifier Timer



"de-frost-it"



Time/Pressure Switches



Water Spray Controls



© 1953

**PARAGON
ELECTRIC COMPANY**
TWO RIVERS, WISCONSIN
World's largest exclusive
manufacturer of time controls

Circle No. 89 on Reader Service Card



"Pressure will be back to normal in a few minutes"

Cooling towers, "evaps" and condensers get their headaches, too. One symptom is high head pressures, usually caused by accumulations of scale, slime and algae in the water-cooling equipment. Cooling efficiency drops—costs go up. A good remedy is a stiff dose of Solvex* Cleaner Tablets, which can be used while the machine is working. Head pressures usually return to normal in 15 to 45 minutes.

The way to prevent such troubles is to use Solvex Maintenance Tablets regularly. Solvex is quite

safe—no acids or alkalis to harm the operator or ruin expensive equipment. Solvex Cleaner and Solvex Maintenance Formulas also are obtainable in granular bulk (grains) for larger jobs.

Virginia Smelting Company distributes two other Solvex products of interest to the industry. One is "CC" Coating, a waterproofing and rust-preventive compound—excellent for use where galvanizing has failed. The other is Ice Machine Cleaner Powder—for eliminating the lime, grease and dirt which

cause machines to turn out opaque, bad-smelling and bad-tasting ice.

See your wholesaler, or write **VIRGINIA SMELTING Co., Dept. 64, West Norfolk, Va.**

*A product of Chemical Solvent Co.

VIRGINIA
Refrigerants

ESOTOOL • V-METH-L • KINETIC CHEMICAL'S "FREONS"
CAN-O-GAS • PERMAGUM • PRESSTITE TAPE
SOLVEX PRODUCTS • SUNISO REFRIGERATION OILS

Circle No. 82 on Reader Service Card

CONTRACTORS

NEWS • ACTIVITIES • PLANS

"Free" Air Conditioning Plugged By Fort Worth Contractors Group

A new and aggressive advertising and merchandising campaign instituted by the Fort Worth (Tex.) Air Conditioning Association has aroused nationwide interest among air conditioning associations, air conditioner equipment manufacturers and home builders associations, according to W. I. Spittler, chairman of the educational and advertising committee of the association.

The theme of the program is centered around "year 'round air conditioning at no extra cost" made possible through a plan of savings in construction. In all advertising to both the consumer market and allied trades these savings are listed and the savings estimated. The really remarkable phase of the program is that the savings actually exceed the cost of equipment and installation thereby making possible the construction of an air conditioned home at a lower cost than a conventionally designed home of the same size.

The campaign points out that there is no loss in quality, materials or workmanship, but that the savings are made possible by eliminating the things made unnecessary by the air conditioning itself.

Substantial savings are realized with better window planning, since all windows are used as a source of light or to provide a view . . . there's no need to worry about cross ventilation and having movable sashes on all windows.

Smaller, more scenic locations, ordinarily considered less desirable by a conventional planner because of poor wind or sun angles provide another source of saving. The use of a rectangular floor plan with ex-

pensive outside wall area and offsets at a minimum can cut building costs up to \$750 according to the results of research compiled by the association. Other savings are made through such items as elimination of the fireplace, breezeway, space heaters, floor furnaces and the attic fan.

Prices quoted in the campaign were based on homes in the \$12,500 price range and included the latest in contemporary styling and building practices. According to the figures compiled by the association, a total savings of \$3,925 could be realized by specialized planning. All cost figures used throughout the campaign were based on current build-

ing prices in the Fort Worth Area.

The entire membership of the Fort Worth Air Conditioning Association voted to undertake the campaign as a joint effort and funds were raised by a special assessment of association members. All advertisements were given the prestige of the association name and carried the names of individual association members. The entire campaign included more than 9,000 lines of newspaper and magazine advertising along with more than 100 radio spots.

In the initial preparation of the proposed campaign, all trade literature and special studies made by utility companies regarding current and future trends in the air conditioning field were accumulated. This information was worked into a presentation and submitted to the association and then in turn to allied groups of architects, builders, utility companies and financing institutions.

After special presentations of the program were made to members and key employees, the program was submitted for the consideration of executives of allied businesses. A special luncheon was arranged for executives at the policy making level and the association's plans were presented to them.

The association sponsored a speaker for allied trade associations and

Head New Jersey Contractors Association



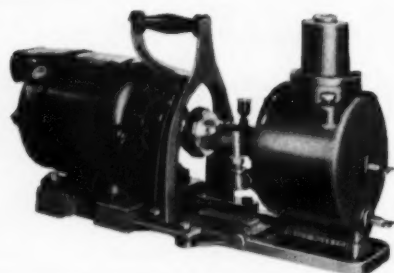
NEW OFFICERS of the Refrigeration Contractors Association of New Jersey pose for this group picture following their installation at the organization's 5th annual "ladies night" party. Seated (left to right) are: Edward Dembek, sgt.-at-arms, Paramount Freezing Equipment Co., Newark; John S. Sanok, vice president, Conditioning Co., Inc., Newark; Silvio C. Filippone, president, Filippone Refrigeration Co., Jersey City; Michael Dee Petillo, chairman of the board, Tony Petillo Refrigeration Co., Jersey City; W. C. Nowels, legal counsel; William J. Capo, director, Cleworth Refrigeration, Elizabeth; Anthony G. Dietl, director, Dietl & Kraft, Newark; F. H. Young, executive secretary; L. Lee Richardson, director, Richardson & Richardson, Inc., Nutley; Leo Zitani, director, Fortune Refrigeration Co., Jersey City. Not present was secretary-treasurer James Naughton, C. W. Fricke Co., Rutherford.

Designed Specifically for Dehydrating and Testing Refrigeration and Air Conditioning Units

BEACH-RUSS PORTABLE VACUUM PUMPS

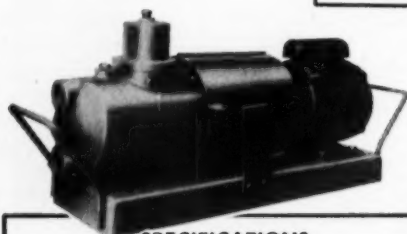
The Service Man's Dream! MODEL O SINGLE STAGE PUMP

Can be carried anywhere. Specifically designed for the one job of providing a completely practical and portable vacuum pump for all field jobs where a vacuum of 1 mm. is adequate.



SPECIFICATIONS

Vacuum, blank flange—	1 mm.
Capacity—	1 CFM.
Horsepower—	1/6 HP.
Weight—	48 lbs.
Oiling—	Pump automatically lubricated.
Over-all length—	21"



SPECIFICATIONS

Vacuum, blank flange—	1/10 mm.
Capacity—	2.5 CFM.
Horsepower—	1/3 HP.
Weight—	80 lbs.
Oiling—	Pump automatically lubricated.
Over-all length—	21"

NOTE: All valves are eliminated in this model.

For Higher Vacuum MODEL A TWO-STAGE PUMP

A completely portable two-stage pump for vacuum up to 1/10 mm. It is the only unit combining all the features desired by the air-conditioning and refrigeration service man . . . rugged, compact, light-weight, with extremely long life . . . and, above all, unusually high performance characteristics. It provides required two-stage operation in one small pump that eliminates complicated valves and adjustments.

Beach-Russ Vacuum Pumps are also made in types and sizes for evacuation and testing of refrigeration equipment on a production basis.

BEACH-RUSS COMPANY 56 CHURCH ST., NEW YORK 7, N. Y.

Send descriptive literature covering ☐ Model O Single-Stage Vacuum Pumps.
☐ Model A Two-Stage Pumps.

We'd like to see the Beach-Russ engineer in our area ☐.

Name

Company

Address

City

Zone No.

State

BEACH-RUSS COMPANY
56 CHURCH STREET • NEW YORK 7, N. Y.

Circle No. 92 on Reader Service Card

also presented the new plan before luncheon and service organizations.

Concurrent with the speeches, association-sponsored newspaper ads appeared in the local papers and transcribed spot announcements were aired over local radio stations. These were tied with special promotion campaigns by local air conditioning dealers and utility companies.

The complete program was conceived and developed by W. I. Spitzer, president of Air Accessories, Inc., and John H. Ericson, account executive of Parker Willson Advertising, both of Fort Worth. It has been copyrighted by Parker Willson Advertising and is available as a packaged presentation for air conditioning groups throughout the country.

Members of the association include Air Accessories, Inc.; Almar-York Co., Inc.; Beals Plumbing & Heating, Inc.; Carrier-Bock Co.; Decker & Roberts; General Engineering Corp.; Lone Star Gas Co.; Lydick-Barmann Co.; Mosley Refrigeration Co.; Thermal Control, Inc.

Affiliate members include W. Pat Crow Home Improvement Co.; Love Refrigeration Co.; B. P. Rhinefort Co., and Webb Air Conditioning Co. Associate (non-contracting) members are J. D. Higgins Co., Koldaire Supply Co., Texas Electric Service, and Texas Refrigeration Supply Co.

RACCA TO PARTICIPATE IN SEATTLE PROGRAM

Following the pattern set at Miami last December, the Refrigeration and Air Conditioning Contractors Association will again participate in a joint program with REMA and RSES during the Seattle Educational Conference and Exhibit, April 24-26, RACCA President George T. Howe announces.

RACCA will provide two speakers at the April 24 session of the Conference: Minor Baker, of the Economic Research Department of the Seattle First National Bank, who will discuss "The Business Outlook"; and Richard M. Stern, mechanical engineer in heating, ventilating and air conditioning, who will talk on "Job Design and the Service Engineer".

Both men are prominent in their respective fields, and RACCA feels their talks will prove both timely and constructive.



Chase comes through

with Crimped End-Seal Refrigeration Tube



There's a double purpose to the crimped end-seal on all Chase Extra-Soft dehydrated Refrigeration Tube.

First of all, it locks out harmful moisture, dirt and air.

Secondly, unlike the old-style flat seal, it is not necessary to cut off the end to pass the tube through a small opening no larger than the tube itself.



Connected with Chase Solder-Joint Fittings, the Chase Extra-Soft Copper Refrigeration Tube forms a pressure-tight, leak-proof installation that can't be beat.



Write today for free book on sizes, weights and uses of Chase Copper Refrigeration Tube... and Solder-Joint Fittings.



Chase



BRASS & COPPER

WATERBURY 20, CONNECTICUT • SUBSIDIARY OF KENNECOTT COPPER CORPORATION

and AIR CONDITIONING • APRIL, 1953

The Nation's Headquarters for Brass & Copper

Albany †	Cleveland	Kansas City, Mo.	New York	San Francisco
Atlanta	Dallas	Los Angeles	Philadelphia	Seattle
Baltimore	Denver †	Milwaukee	Pittsburgh	Waterbury
Boston	Detroit	Minneapolis	Providence	
Chicago	Houston	Newark	Rochester †	(† sales office only)
Cincinnati	Indianapolis	New Orleans	St. Louis	

Circle No. 93 on Reader Service Card



Don't scratch for the solution—

"AMPROBE" IT!

Is that motor overloaded? Does the system need rewiring? Snap the Amprobe around one conductor (insulated or uninsulated) and you have your answer in seconds. It's the only pocket-size snap-around volt-ammeter, for measuring current instantly without shut-downs or ammeter connections. Write for Catalog Dept. CR-43, Pyramid Instrument Corp., Lynbrook, N. Y. (Export Div.: 458 Broadway, N. Y. 13).

Amprobe "600" 0-15/30/60/150/300/600 amps A-C, 0-150/300/600 volts A-C. Complete with cowhide case and voltage test leads, \$59.50. Amprobe "1200" (to 1200 amps A-C) \$67.50 complete. Amprobe "300" (to 300 amps A-C) \$49.50 complete.



Circle No. 94 on Reader Service Card

NEW HEATING GROUP FORMED IN N. CAROLINA

Formation of a new Warm Air Heating and Air conditioning Association in the Charlotte and Mecklenburg County area of North Carolina has been announced by J. H. Daughtry, of Daughtry Sheet Metal Co., president of the group.

Purpose of this organization, it is stated, are: the advancement of warm air heating and air conditioning installations and industries in Charlotte and North Carolina, the promotion of high standards of workmanship, installations, and service to the public; the provision of a clearing house for the collection,



"Just sign here, please—I'll go into the sales talk later. We'll save time that way!"

correlation and dissimulation of information relative to the industry for the coordinated standards of present and future problems, and to generally protect and promote the welfare of the industry to the extent possible and permissible.

In addition to Daughtry, officers of this association have been elected as follows: vice president, E. P. Nisbet, E. P. Nisbet Co.; 2nd vice president, Grady Broome; secretary-treasurer, Paul W. Brown; assistant secretary-treasurer, Tom Kirkwood. Directors elected were Mark Johnson, Banks Simpson, Roy S. Garmon, W. G. Smith, and Jim Conway.

The following firms are represented in the association:

Smith LeSturgeon Co., Baucom's Warm Air Heating Service, Chas. S. Besser Co., E. P. Nisbet Co., Conway Gas Equipment Co., Barber Heating Co., Charlotte Oil Burner Sales, Page Air Conditioning Co., Avrett



**Bending's
much easier**

WHEN YOU WORK WITH
REVERE

DRYSEAL

REFRIGERATION TUBE

Truly, it's no effort at all to bend dead-soft Dryseal. No tools are needed, just bend it by hand. And the special temper of the copper used, and its ductility, are the reasons Dryseal will not split when flared for compression fittings. Another thing you'll like about Dryseal are the special, precise, mechanical, double-crimped ends. This double crimping is the last step in the manufacture of Dryseal, and assures you of receiving a bone-dry, dirt-free tube.

The seal is made in such a way that it does not change the diameter of the tube. This makes it possible to pass the tube through any opening large enough for the tube itself. Economical tube sizes range from $\frac{1}{8}$ " to $\frac{3}{4}$ " O.D.

And, for your greater convenience, Dryseal is packed in a nifty-50 one-coil carton. This carton, which has been attractively designed for easy identification in stock, contains one 50-foot coil of Dryseal... is easier to handle, light weight, economical and is sturdily made to assure protection of the tube.

IN THE EASY-TO-HANDLE
NIFTY-FIFTY...ONE COIL CARTON



REVERE
COPPER AND BRASS INCORPORATED

Founded by Paul Revere in 1801
230 Park Avenue, New York 17, N. Y.

Mills: Baltimore, Md.; Chicago and Clinton, Ill.; Detroit, Mich.;
Los Angeles and Riverside, Calif.; New Bedford, Mass.; Rome, N. Y.—
Sales Offices in Principal Cities. Distributors Everywhere

SEE REVERE'S "MEET THE PRESS" ON NBC TELEVISION EVERY SUNDAY

Carries your shop to the job...



the NEW

Service-Master

REFRIGERATION AND AIR CONDITIONING SERVICE BODY

Service-Master is designed to speed up your work — styled to reflect the ability of your firm. Its six weathertight compartments include shelves and bins for the tools and parts you'll need on the job.

Whether your chassis is old or new — you'll find it economical to choose Service-Master for your next service body.



1. Weathertight, double-panel doors.
2. 48 1/2" wide loading area, with one-piece ribbed steel floor.



3. Fully enclosed wheelhousings.
4. Parts bin with hinged cover and removable dividers.



SERVICE-MASTER is Delivered Ready-for-Work!

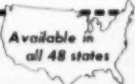
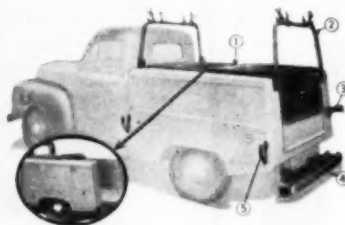


Service-Master sets the pace in service body styling. Compare it with any other make for completeness, design, and advertising value.

◀ LOOK FOR THIS NAMEPLATE!

OPTIONAL EQUIPMENT

1. Telescopic steel roof, and end-gate with locking handle.
2. Removable rack with adjustable ladder and material brackets.
3. Removable vise bracket with pipe support on head panel.
4. Rear bumper-step.
5. Pipe carrying brackets.



McCABE-POWERS AUTO BODY CO.
5900 NORTH BROADWAY • ST. LOUIS 15, MISSOURI

Please send me literature and complete information on Service-Master:

Name _____

Company _____

Address _____

City _____ Zone _____ State _____

AZ

Circle No. 96 on Reader Service Card

& Ledbetter Co., Holland Furnace Co.

Charlotte Heating & Air Conditioning Co., Daughtry Sheet Metal Co., Moore Sheet Metal Co., Ballenger Brothers, Broome Sheet Metal Co., R. S. Garmon Co., Garmon & Matthews Heating Co., Williamson's Heating Service, H. V. Johnson & Son, Inc."

HENDERSON RESIGNS AS ACRMA VICE PRES.

William B. Henderson has resigned as executive vice president of the Air Conditioning & Refrigerating Machinery Association, effective March 1, to become managing director of Direct Mail Advertising Association. His new headquarters will be at 17 E. 42nd St., New York City.



Henderson has been associated with ACRMA and its predecessor, Machinery and Allied Products Institute, since 1933, and aided in the founding of the MAPO organization. In World War II he served as a U.S. Navy Intelligence Officer in the South Pacific.

No successor to Henderson has as yet been named by ACRMA, and office activities are presently being handled by Mary Jane Stewart, ACRMA secretary. In announcing Henderson's resignation to ACRMA members, president A. O. Vogel said that plans are under way for an expansion of the association's activities. A special Task Committee, appointed some time ago, has had several meetings for discussions along this line, Vogel said.

NEW COMMITTEE CHAIRMEN ANNOUNCED BY RACCA

Completing organizational activities by the new officers of Refrigeration and Air Conditioning Contractors Association, announcement has been made of men named to head the association's various committees. These are as follows:

Finance, Ralph E. Manns, Ralph

E. Manns, Inc., Wilmington, Calif.; insurance, B. C. McCall, Lilie & McCall, Inc., Chattanooga, Tenn.; labor relations, Harvey O. Miller, Murphy & Miller, Inc., Chicago, Ill.; legal, A. M. Palen, Palen Refrigeration, St. Paul, Minn.

Membership, Dudley M. Cawthon, Dudley M. Cawthon, Inc., Miami, Fla.; publicity, R.W. Noll, Commercial Refrigeration, Los Angeles, Calif.; safety, Ralph W. Lampie, Lampie Refrigeration, Richmond, Va.; trade relations, Wm. J. Schemers, Schemers Refrigeration, Detroit, Mich.; 1953 convention, Ernest W. Farr, Jr., Bell Refrigeration Corp., Lakewood, Ohio.

COMMITTEES APPOINTED BY L.A. CONTRACTORS

Recent committee appointments by the Los Angeles, Calif., contractors association include the following:

Jobbers and manufacturers relations—Ralph E. Manns, Bill Jennings, Neal Templin, Charles Walling, Bill Robinson, Sam Elster, H. H. Kohlenberger, Don Kissell; sister associations — Kissell, W.R.H. Eby, Manns, F. H. Hieatt; B-9 code committee—Frank Park, Templin, Bob Savage; home show — Don Beck, Dale Missimer.

Joint conference board — H. B. Ely, Park, Bob Noll, Sr., Kissell, Verne Zimmerman, F. E. Hershey, Walling, Robinson; advertising — Beck, Noll, Elster, T. K. Holmes, Jennings; construction employers council—Eby, Ely; joint apprenticeship—Ely, Walling, Templin, Robinson, Herb Schuch, Eby, Elster.

CHICAGO CONTRACTOR FIRM ELECTS OFFICERS

Joseph H. Lazar, president of Refrigeration Systems, Inc., Chicago refrigeration and air conditioning contractor, has announced that at a recent directors' meeting the following officers were elected:

Vice president, Daniel M. Brown, who is in charge of the Hudson Bay division; secretary, Lawrence H. Lazar, chief engineer; treasurer, L. Cashia, office manager. Alfred H. Kaufmann, formerly vice president and treasurer, has resigned.

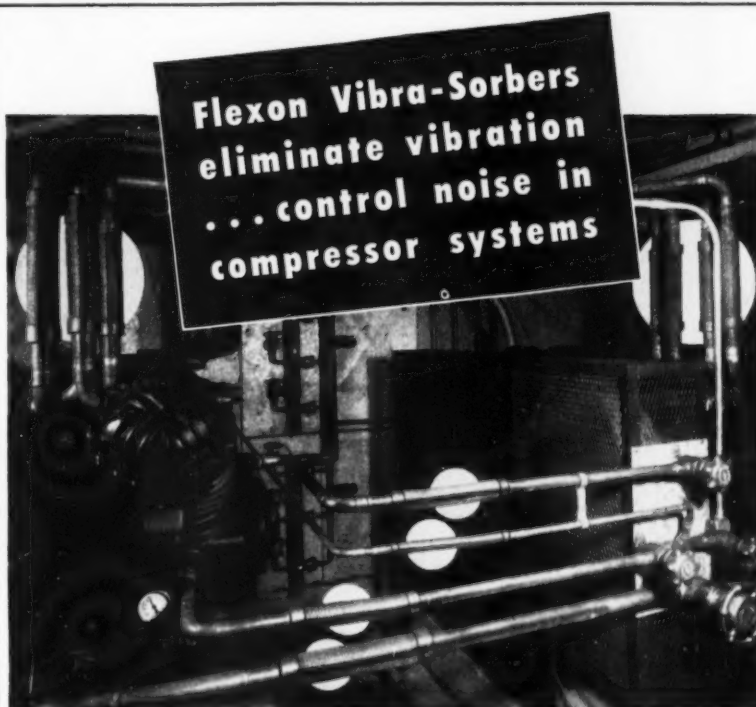
FLORIDA CONTRACTORS ELECT NEW OFFICERS

Officers of the Air conditioning and Refrigeration Association of Florida, Inc., elected for the 1953 term, are: president, L. P. Gignac; vice president, E. G. Carroll; treasurer, C. E. Kirby; directors, D. M. Cawthon, S. Hamilton, J. W. Hendricks, H. C. Higgins, J. R. Turpin, R. B. Wiley. H. S. Davis is executive secretary.

Committee appointments for the Florida group have been announced as follows: apprentice training—Harry Billitch, chairman; L. L.

Grant, Turpin; labor relations—Carroll, chairman, Hendricks, Davis, Wiley, Bob Lafferty, Kirby; legislative—Hamilton, chairman, Cawthon, Higgins, Kirby, J. B. Singer; membership—Hendricks, chairman, Wiley, Allen Dean, B. B. Fow; program—Hamilton, chairman, Lafferty, Cawthon; steering—Hamilton, chairman, Carroll, Hendricks, Higgins, Singer, Wiley.

**BUY FROM YOUR
REFRIGERATION WHOLESALE**



The Flexon Vibra-Sorber is a standardized, corrugated flexible metal connector for eliminating vibration and dampening sound in refrigeration and air conditioning systems. As a result, the Vibra-Sorber protects rigid piping from vibration stress and assures the leakproof conveyance of refrigerants. Compressor noise is kept out of piping and ducts. All-metal assemblies have high resistance to corrosion and fatigue and retain gas- and air-tightness even after being subjected to vibration over long periods of time.

The Vibra-Sorber is available in bronze with copper tube ends in sizes from 1/8" to 4" I.D. and in steel in sizes from 5" to 12" I.D. Write for complete information.



Flexon identifies CMH products that have served industry for over 50 years.

CHICAGO METAL HOSE Division

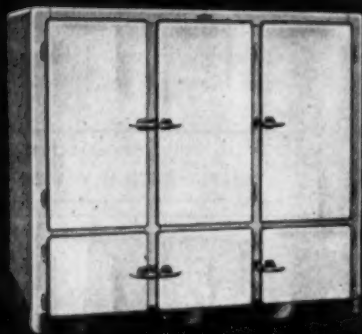
Flexonics Corporation

1321 S. Third Avenue • Maywood, Illinois
Manufacturers of flexible metal hose and conduit, expansion joints, metallic bellows and assemblies of these components.
In Canada: Flexonics Corporation of Canada, Ltd., Brampton, Ontario

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FOR DEPENDABLE SERVICE YEAR AFTER YEAR!

Choose the P-H LINE



with
"Grad-U-Matic"
AIR
CONDITIONING
"Lifetime"
PORCELAIN OR
STAINLESS STEEL
EXTERIORS



UNDERWRITERS
APPROVED

More and more — hotels, schools, cafeterias and institutions of every type are turning to the famous P-H Line for refrigerators that will stand up and take it, year after year! Choice of 51 Reach-In Models from 20 to 90 cu. ft. capacity — Remote or self-contained. See your nearest P-H Dealer.

Write for illustrated Brochure on Genuine P-H "Lifetime" Porcelain Enamel Finish and "Scratch-Stain" Test.

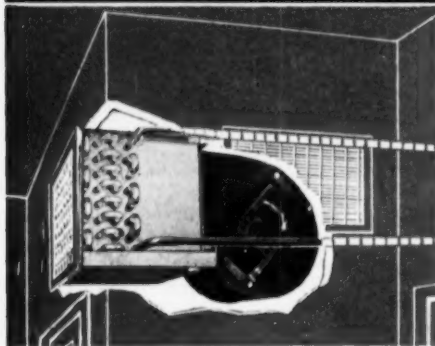


PUFFER HUBBARD MFG. CO.
GRAND HAVEN, MICHIGAN

New York Export Office—Puffer-Hubbard International 440 Lafayette St., New York City—Cable Address "MANREFSUP"

REACH-IN AND PASS-THRU CABINETS—BEVERAGE COOLERS—DOUGH RETARDERS—BAKED GOODS FREEZERS—DAIRY-DELICATESSEN CASES

WHY INSTALL AND INSULATE EXPENSIVE DUCT WORK TO AIR CONDITION A NEW BUILDING? WHY WRECK AN OLD BUILDING TO INSTALL AND INSULATE EXPENSIVE DUCT WORK?



TRUE AIR CONDITIONING IS
NOW POSSIBLE WITH

SPOTAIRE

Series HRC
"INSTALLED WITH
ORDINARY PIPING"

SAVES MATERIAL
SAVES LABOR
SAVES TIME
SAVES 30% PLUS

MAKES POSSIBLE ECONOMICAL AIR
CONDITIONING OF EXISTING BUILD-
INGS AS WELL AS NEW

Thousands of existing structures
motels, hotels, hospitals, offices,
residences, and apartments are
ready for air conditioning. This
business is yours for the taking.

INSTALL UNITS LIKE YOU
WOULD A RADIATOR

IN ATTICS, UPPER AREA OF CLOSETS,
AND OTHER OUT OF WAY, OUT OF
SIGHT PLACES

INSTALL ZONE AIR CONDITIONING AND GAIN THESE ADVANTAGES — HRC UNITS COOL, HEAT, FILTER, VENTILATE, DEHUMIDIFY AND RECIRCULATE THE AIR — SIMPLIFIED PIPING CAN BE USED FOR EITHER COLD OR HOT WATER. ALSO FOR USE WITH FREON

SPOTAIRE
Series H.R.C.

is
*"Quiet Beyond
Belief!"*

ACCOMPLISHED BY USING
LARGE FAN TURNING AT LOW SPEED
A d-h EXCLUSIVE FEATURE

drayer-hanson
INCORPORATED

FACTORY — 3301 MEDFORD ST., LOS ANGELES 63, CALIF.
Address Mail - Box 2215 TERMINAL ANNEX, LOS ANGELES 54, CALIF.

Write for Literature



COAST CONTRACTOR NAMED HOME SHOW EXECUTIVE

Dale J. Missimer of Pacific Refrigeration Co., a Member of the Refrigeration and Air Conditioning Contractors Association of Southern California, has been appointed as one of four new vice presidents of the Los Angeles Construction Industries Exposition and Home Show for 1953.

NEW OFFICERS HEAD CHICAGO CONTRACTORS

John Annis, Leon Epstein, and William L. Watson have been selected by the Refrigeration and Air Conditioning Contractors Association of Chicago to lead that group for the current year.

Annis, Lipman Refrigeration Sales, has been elected president; Epstein, Reliable Refrig. & Air Conditioning Corp., has been named vice president; and Watson, Refrigeration Service Co., is the new secretary-treasurer.

Directors of the organization for 1953 are: Frank L. Haas, Haskris Co.; William L. Long, Chicago Conditionaire Co.; Walter McCarty, McCarty Bros. Equipment Corp.; Earl L. McLean, Merchants Commercial Refrigeration Engineering Sales, Inc.; Harvey O. Miller, Murphy & Miller, Inc.; A. W. Theis, Theis Refrigeration Co.

Harry L. Bransky is immediate past president.

The Chicago association also reports a new member firm in Refrigeration Systems, Inc. Principals of this firm are Wm. E. Sweiding and J. H. Lazar.

ARMSTRONG TO MERGE CORKBOARD PRODUCTION

Armstrong Cork Co. recently announced plans to consolidate all of its corkboard and cork pipe covering production in one plant at Beaver Falls, Pa. The company's other cork insulation plant, located at Camden, N. J., will be placed on a stand-by basis after the consolidation program is completed early in 1954.

**BUY FROM YOUR
REFRIGERATION WHOLESALER**

New Shopping Center. Uses



Air Conditioning Throughout



The eleven stores in the big new Freedom Shopping Center in Baltimore, built and owned by Henry J. Knott Enterprises, are all kept cool and comfortable with Frick Unit Air Conditioners. Several of these are tied-in with heaters for year-'round use. Installation by the Paul J. Vincent Co., Baltimore Distributors who have put Frick Air Conditioning in over 100 theatres.

Frick Refrigerating and Air Conditioning Equipment can solve YOUR cooling problems equally well. Write



Frick Units, like this one in the Beauty Salon, Air Condition all the Shops at Freedom Center.

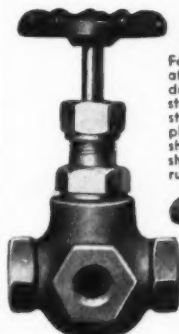


Also Builders of Power Farming and Sawmill Machinery

shank AMMONIA VALVES AND REFRIGERATION PRODUCTS

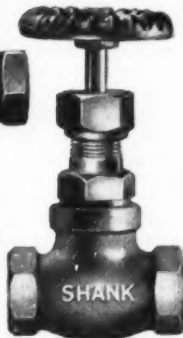
3-Way Dual Shut-Off Valve

For use where Refrigeration Codes require dual relief valve installations. Stainless steel stem. Indicator plate on hand wheel shows position of valve shut-off. Completely rust-proofed.



Semi-Steel Shut-Off Valve

Highest grade non-porous metal—full size parts—clean cut threads. Back seated stem—Shank design base—perfect alignment. Long life packing ring.



IF YOUR JOBBER DOESN'T STOCK—
WRITE

CYRUS SHANK CO.

631 W. Jackson Blvd.

Chicago 6, Ill.

LARKIN MEANS PERFORMANCE



LARKIN TURRET HUMI-TEMP

The acid test of any product is performance. That's why you will find Larkin products used so widely for so many different refrigeration and air-conditioning applications. Users know from past experience that they can count on Larkin for top performance—day in, day out—year in, year out.

Manufacturers of the original Cross-Fin Coil
• Humi-Temp Units • Frost-O-Trol Hot Gas Defroster • Evaporative Condensers • Cooling Towers • Air Conditioning Units and Coils
• Direct Expansion Water Coolers • Heat Exchangers • Disseminator Pans.

WATCHDOG OF THE NATION'S FOOD SUPPLY

LARKIN COILS

519 MEMORIAL DR., S.E. • ATLANTA, GA.

Your Customers' Best Buy...

IDEAL

Speed-Freeze PRODUCTS

BEVERAGE COOLERS
unexcelled storage capacity
(56 cases 12 oz. - 8 ft. cooler!)

**INSTANTANEOUS
DIRECT DRAW
DRAFT BEER COOLERS**
(with refrigerated faucets)

IDEAL

COOLER CORPORATION

2953 Easton Ave. St. Louis 6, Mo.

WESTINGHOUSE NAMES NEW DISTRIBUTORS

Awarding of franchises to five additional firms to sell Westinghouse air conditioning has been announced.

New outlets are: Johnson-Hilliard, Inc., Kingsport, Tenn., and Gordon L. Hayes, Troy, N. Y., to sell self-contained air conditioning equipment; J. M. Fink Co., New York City, and Musselman's, Lancaster, Pa., to sell field-assembled air conditioning equipment; and J. M. Steinhardt, Inc., Albany, N. Y. to sell self-contained equipment.

SHERER RE-ELECTS OFFICERS, DIRECTORS

At the annual meeting of the stockholders of Sherer-Gillett Co. held recently in Highland Park, Ill., company directors were reelected, with R. P. Sherer, Highland Park, to serve as board chairman. Other directors are L. O. Bower, R. E. Church and J. H. Coolidge of Marshall; Fred A. Goehler, Seattle, Wash., A. W. Sherer, Chicago, and R. D. Sherer, Glen-coe, Ill.

Also reelected were present officers of the company: J. H. Coolidge,

president, L. O. Bower, vice president and assistant to the president, G. E. Ruddock and C. B. Butler, vice presidents, C. F. Greene, treasurer, R. E. Church, secretary, and Dorothy Kleindinst, assistant secretary.

USAIRCO NAMES THREE NEW SOUTHERN DEALERS

Appointment of three new dealers in Georgia and Virginia for its packaged air conditioning equipment has been announced by United States Air Conditioning Corp.

Klein Industries, covering eight neighboring counties, will handle self-contained central station equipment, upright store type conditioners and window type room air conditioners.

Standard Sales & Service Co., Washington, Georgia, will merchandise store type conditioners, home air conditioners and window type room air conditioners, in the territory comprising six northeast Georgia counties.

Air Flo Heating and Air Conditioning, Inc., Richmond, will handle RK equipment, store conditioners and home air conditioners in 12 counties of east central Virginia.

The Simplest Way to SOLVE SCALE PROBLEMS



Proven Uses Include

ALL PIPING SYSTEMS
CONDENSERS (most types)
COOLING TOWERS
ENGINES & COMPRESSORS
CUBE & FLAKE ICE MAKERS
BOILERS (to 175 # wp)
and many others

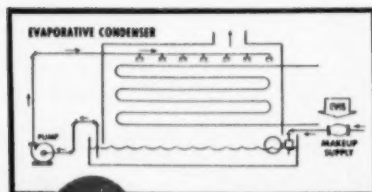


Evis Water Conditioners are accomplishing astonishing results in conquering scale. Better yet, this method of control eliminates equipment shut-downs for periodic clean-up.

The Evis Conditioner is a simple pipeline fitting made of Specially Processed Cast Metal which imparts a continuous catalytic action on water-solids flowing through it. The change effected on physical behavior inhibits most scale formations. In fact, Evis-treated Water has been known to "carry" hardness as high as 600 gpg before depositing scale.

Evis operation starts immediately on installation—frequently complete clean-up is accomplished in less than 60-days. Surfaces then remain free of scale indefinitely.

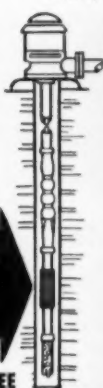
For further information about Evis Water Conditioners and for dealer franchise arrangements write your nearest Evis Regional Distributor.



EVIS IS NOT A SOFTENER

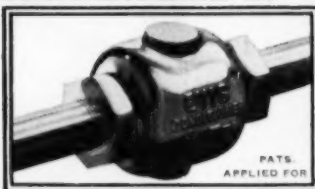
Flow Line Type
Available for
Deep Well Pumps

SOLD ON 90-DAY
MONEY BACK GUARANTEE



SIZES

SCREWED
1/2" through 2"
FLANGED
2" through 12"



EVIS MANUFACTURING COMPANY
40 Boardman Place • San Francisco 3, California
© 1953 EVIS MFG. CO. EV-66

REGIONAL DISTRIBUTORS

WHITTIER (Calif.)

KEN-EVIS COMPANY

11146 E. W. Hillier, O.N. 9-2211

SAN BERNARDINO (Calif.)

KNUPPE & WRIGHT

220 E. 46th St., SB 8-7838

SAN FRANCISCO

NORTH-EVIS AGENCY

74 Duane Ave., SF 7-3822

RENO

WATER CONDITIONED SALES CORP.

Western Amer. Life Bldg., 2-5639

SEATTLE

EVIS-NORTHWEST CORP.

2437 E. Marginal Way, SE-6116

CHICAGO

EVIS-GREAT LAKES COMPANY

201 N. Wabash Ave., CT 2-5918

OMAHA

EVIS-MIDWEST, INC.

1504 Dodge St., E-7044

DALLAS

EVIS-SOUTHWEST CO.

6837 Cherry Chase, EM-0137

ATLANTA

EVIS-SOUTHEAST CO.

735 Spring St., N.W., FE-0241

PHILADELPHIA

EVIS-MID-EAST CO.

4 E. Richmond St., NE 4-8703

ALBANY (New York)

EVIS-NORTHEAST CO.

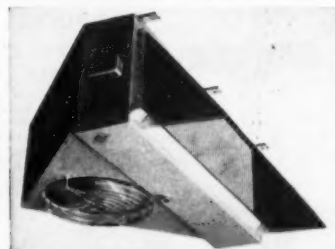
17 Kapelle Dr., UN 9-7921

EXCLUSIVE MARINE DIST.

MORGAN-EVIS CO., SAN FRANCISCO

420 Market St., TH 2-4565

WHY EDITORS GROW GRAY!



A. H. Witt of the A. H. Witt Co., Los Angeles, has called to our attention the fact that in the "New Products" section of our December Issue we published an excellent item on the new "Defrostair" electric defrost coil being produced by his firm. He was very happy about it—except that the photo illustrating this item appeared upside down!

Herewith is a picture of the coil in its proper position, which is very important, Mr. Witt explains, inasmuch as one of the features of this coil is the trapping of heat under the hood.

Our apologies to Mr. Witt and to our readers!

BUY FROM YOUR
REFRIGERATION WHOLESALER

Circle No. 104 on Reader Service Card

about PEOPLE

Robert W. Saxton has been appointed sales manager of the contract division of the Kold-Hold Mfg. Co. For the past six years Saxton has been district sales supervisor for the U. S. Gypsum Co. of Chicago. He is a four-year veteran of the U. S. Navy with service as a navigator of a destroyer in the Mediterranean Sea.



E. T. Houlihan has been appointed manager of the industrial and refrigeration department of Taco Heaters, Inc. Houlihan will be in charge of this new department created to handle the increased volume of business in these fields. He has been with Taco since 1930 and has acted in a sales executive capacity for the last 10 years.



Charles A. Myers has been appointed sales representative in the southwest for Superior Valve & Fittings Co. The Charles A. Myers Co., Houston, Tex., operates as a manufacturer's representative in Texas, New Mexico, Colorado, Oklahoma, Arkansas, and Louisiana. Myers is an electrical engineer



and has worked with several firms in addition to free lance contracting. Olan Reese, an associate of the Charles A. Meyers Co., will assist in representing Superior products in the southwest.

Sporlan Valve Co. has added **Don B. Rentschler** and **Edward F. Kounovsky** to its present sales and engineering staff. Rentschler will



D. B. Rentschler



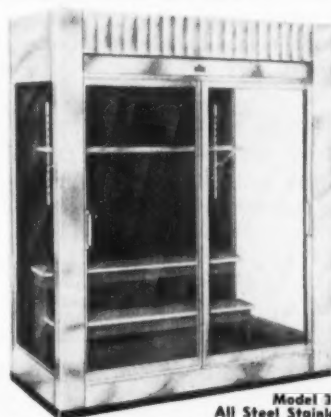
E. F. Kounovsky

work in the St. Louis sales office handling application engineering and technical matters related to sales and field service. Before joining the firm, he was service manager for Ajax Corp. of America. Kounovsky came to the company from Sunnen Products Co.

Alexander B. Freeman has been appointed vice president of American Brass Co.'s American Metal Hose Branch. Freeman began his service with the company in 1912 as a stock clerk in the American Metal Hose Branch.

Acme Industries, Inc., has appointed **Frank Reed** controller and assistant secretary-treasurer and **Brant S. Beaudway** has joined the firm as manufacturing manager. Reed will handle all inter-plant con-

Circle No. 98 on Reader Service Card
it's a GEM!



Gem Refrigerator Company, custom maker for 30 years, now makes competitively priced commercial refrigerators with custom features.

protected territories open!
Don't miss out on the greatest sales opportunity to come your way. Get details.

GEM

REFRIGERATOR CO.
165 W. Wyoming Ave.
Philadelphia 40, Pa.

**FIVE BOOKLETS TO HELP \$1
YOUR SALESMEN SELL!**

Send \$1.00 with your name and address attached to this ad and mail today for this set of handy booklets on selling techniques. Only one set to a customer.



A SHORT COURSE IN SALESMANSHIP by J. C. ASPLEY. Packed with helpful suggestions on selling fundamentals. Over 300,000 copies sold.

SELL BY GIVING by JAMES T. MANGAN. A remarkable philosophy and approach to selling which simply cannot fail. Over 200,000 copies sold.

THE KNACK OF SELLING YOURSELF by JAMES T. MANGAN. Every salesman must sell himself before he can sell anything. This book blueprints the way. Over 300,000 copies sold.

HOW TO SELL QUALITY by J. C. ASPLEY. Tested methods to overcome price objections and sell a quality product in a buyers market. Over 500,000 copies sold.

STEP OUT AND SELL by W. E. HOLLER, former sales manager for Chevrolet. An inspiring book that packs a real punch. Over 250,000 copies sold.

Each booklet averages 64 pages, size 4 x 6". Practical, down to earth, and packing a wealth of help, millions of these booklets now used in training by some of the largest companies in all lines of business.

DARTNELL
MANAGEMENT TRAINING AIDS
4652 Ravenswood Ave., Chicago 40, Ill.
Circle No. 97 on Reader Service Card

trols and direction of budgetary activities. In Beaudway's new capacity, he will be responsible for all manufacturing phases.

The Electric Refrigeration Div. of Servel, Inc. has appointed **Dennis Miller** and **Clifford H. Hager** to the commercial electric refrigeration field service staff. Miller will handle service contacts with manufacturers and wholesalers in the southwestern territory, with headquarters in Dal-



D. Miller



C. H. Hager

las. Before joining the company he was with the service staffs of refrigeration firms in Texas. Hager, as

field service representative in the southeastern territory, will have his headquarters in Chattanooga. He has been associated with refrigeration supply firms in that city for the past ten years.

Donald P. Shafer has been appointed manager of the Columbus, Ohio, branch office for General Controls Co. His duties include handling sales, engineering and service on the firm's line of automatic controls through the Columbus area. Prior to joining the firm, Shafer handled low temperature welding equipment produced by Eutectic Welding Alloys Corp.



W. E. Baker has retired from his duties as vice president and assistant to the president of Servel, Inc. Before his appointment to the latter position he had been the company's production chief since joining the firm in 1934.

Taco Heaters, Inc. has appointed **Robert H. Chaffee** sales manager for heating and cooling products under the direction of Joseph R. Murphy, vice president in charge of sales. Chaffee, in the heating industry since 1929, has been with the firm since 1943 as New England sales manager. He will make his headquarters in the Providence, R. I., offices of the company.



Alfred P. Levin, formerly advertising manager and field sales manager of Jordon Refrigerator Co., has been appointed sales manager for the firm. In his new position,



but this is
BETTER!

THE NEW "Serviceman"

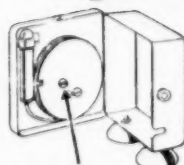
Yes, thousands found the former Marsh "Serviceman" to be the handiest and best testing thermometer on the market . . . but that hasn't stopped us from making it a whole lot better!

Just compare the old and the new and you'll see what we mean. The new serviceman, with its razor sharp markings, bright hair-line pointer, and iridescent gun-metal finish, looks better; but this is only the outward evidence of improvements all the way through.

It now tests to forty below! By a new process, the bourdon tube has been made permanently leak-tight. An internal stop protects instrument from excess temperatures. Recalibrator is now in the back (see cut) so instrument can be corrected without removing crystal.

Your wholesaler has the new Serviceman.

MARSH INSTRUMENT CO. Sales affiliate of Jas. P. Marsh Corp.
DEPT. P, SKOKIE, ILL.



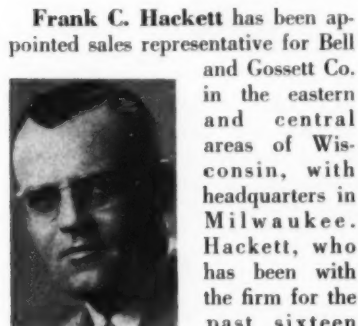
Arrow points to conveniently located "Recalibrator".

MARSH Refrigeration Instruments

GAUGES • WATER REGULATING VALVES • SOLENOID VALVES • HEATING SPECIALTIES

Circle No. 106 on Reader Service Card

Levin will concentrate on the sales activities of the firm's upright home freezer line. He will also direct expansion of the company's field sales force. He joined the company seven years ago as advertising manager and was appointed to direct the field sales forces a year ago.



F. C. Hackett

Frank C. Hackett has been appointed sales representative for Bell and Gossett Co. in the eastern and central areas of Wisconsin, with headquarters in Milwaukee. Hackett, who has been with the firm for the past sixteen years, formerly was in charge of operations in Washington, D. C., and has served as sales promotion manager. He succeeds the late Paul R. Hoffman who handled sales in the Wisconsin territory for more than twenty years. **Frank Neier**, formerly with the company's Morton Grove service department, has joined Hackett to handle service in the Milwaukee area.

H. P. Peterson has been appointed chief engineer and **Thomas L. Arnold** has been named sales manager for the heating division for Bush Mfg. Co. Formerly a consulting en-



H. P. Peterson



T. L. Arnold

gineer in refrigeration and heating, Peterson represented Bush in Philadelphia for several years. Arnold will supervise the setting up of a nationwide sales force to handle their heating line, and will supervise all sales and distribution of the firm's heating products. President of the Conn. chapter of ASHVE, he was formerly with U.S. Rubber Co.

Thomas G. Judd has been appointed director of advertising and merchandising of Bonney Forge & Tool Works, Allentown, Pa., according to an announcement by Fred Durham, vice president and director of sales.



Judd, a graduate of the University of Oregon, served in World War

II as a captain in Air Force Intelligence. For the four years after the war he owned and published a weekly newspaper in Mt. Pleasant, Utah. Late in 1950 he sold his interests to become advertising manager of Thermoid Co., Trenton, N. J., with whom he was previously associated.

F. M. Bennett has been appointed eastern area manager of sales for Williams Div., Eureka Williams Corp. Bennett will make his head-

SATISFIED CUSTOMERS SAY:

Oceans of Beer

...without a lick of trouble

Beverage-Air DIRECT DRAWS

Top-notch performance and trouble-free service! That's the story that hundreds of satisfied users tell about Beverage-Air Direct Draw Systems... a story that can add up to increased volume for you.

When you sell Beverage-Air, you sell incomparable service -

- No messy water tanks, troublesome air or water duct type cooling.
- No excessive, complicated controls.
- A perfect glass of beer drawn each time through non-toxic, sanitary lines that contain less than one ounce of beer from the keg to the faucet tip, at the correct serving temperature.

Beverage-Air Direct Draw Systems will give your customer satisfied service that adds up to "Oceans of Beer without a lick of trouble".

Write today for complete information on Beverage-Air equipment, and direct mail literature for mailing to your customers.

THE PUNXSUTAWNEY CO.

PUNXSUTAWNEY, PA.

Branch Office: 480 Lexington Ave., New York 17

Circle No. 107 on Reader Service Card

quarters in the Chrysler Bldg., New York City. He was formerly manager of heating and air conditioning sales for General Electric Co. in New England.

Richard A. Williams has been appointed director of engineering of Comfort Products Corp., Dallas, Tex. He will handle both designing and research projects. He was formerly chief engineer for Yates-American Machine Co.

Minneapolis-Honeywell Regulator Co. has appointed **Devon W. Fryback**, **O. B. Pyle, Jr.**, and **Edwin J. Klein** to regional sales positions. Fryback has been named sales manager of the eastern region for the industrial division, Pyle has been appointed industrial manager of the Mid-Atlantic area and Klein has been made manager of the firm's Philadelphia office. Fryback joined the firm in 1927 and worked in Chicago, New York and Connecticut territories. Pyle has been with the company for 24 years.

E. A. Nash has been promoted to merchandising manager of Airtemp



E. A. Nash

Div., Chrysler Corp. **J. G. Kehoe** will replace Nash as sales training manager. Nash assumes the new position after seven years at his former post. He will co-ordinate Airtemp's

advertising, sales promotion, sales training and publicity programs. Kehoe held sales and personnel positions with Chrysler since joining the firm in 1941.

Al O. Stein, has been appointed field representative for Bally Case and Cooler Co.,



in the southeastern United States. While associated with Bally, he is also serving other manufacturers of refrigeration equipment and components in that part of the country. He has had many years experience in the refrigeration field.

Robert P. Quinn has been appointed the new heating-air conditioning representative in the



Louisville territory for McQuay, Inc. Quinn has been active in the sales and engineering of air conditioning, ventilation and heating since 1936. He was recently with Technical Products Service and Sales of Louisville.

Cutler-Hammer, Inc. has appointed **F. J. Meyer** and **R. R. Smith** divisional sales managers. Meyer is now division manager, heating device sales, and Smith is division man-



CHECK THESE ADVANTAGES AGAINST ANY OTHER LIQUID LINE FILTER-DRIER

AMAZING PRICE: Check SUPER-FLO'S price, for both original equipment and replacement, against ordinary driers which do not have massive depth filters, molded drying elements, and spun-end copper shells.

DEPTH FILTERING: A massive fiberglass bag, with unsurpassed depth filtering efficiency, to remove unprecedented quantities of even the most minute foreign particles.

MOLDED DRYING: The famous molded Remcal drying element, field-proven most effective for permanent refrigerant drying, even at liquid-line temperatures. Strong, stable, won't powder.

Plus . . . Spun-end Copper Shells
... Free Flow ... Sizes Thru 5-hp.

Available to the trade through
wholesalers everywhere.



Circle No. 108 on Reader Service Card

ager, renewal parts sales. Meyer joined the company in 1949 and was in the headquarters sales department until 1951 when he became a specialist in electric heating devices. Smith came to the firm in 1921 as a member of the production department. In 1942 he became a member of the headquarters sales organization.


F. L. Line has been appointed sales manager of the C. Nelson Mfg. Co., St. Louis. In sales work during his entire business career, Line was most recently in charge of ice cream cabinet sales in southern California for Frigidaire Sales Corp. Prior to that he was jobber sales manager for Rheem Mfg. Co. in the western states.



**BUY FROM YOUR
REFRIGERATION WHOLESALER**

another RECORD first

Do the Refrigeration Coils You Use Have Motor Overload Protectors?



All "RECORD" Coils Have This Added Protection

Refrigeration Engineering, Inc.
7250 E. Slouson Avenue
Los Angeles 22, Calif.

Circle No. 111 on Reader Service Card

For a Faster Sweating Job



Clean Fittings with SCHAEFER Brushes

(Look for this trademark)

SCHAEFER BRUSHES
— MILWAUKEE —

Made of Stainless Steel Wire, secured in 4-ply wire handle with wood grip. Strong, stiff, wear-resisting, corrosion-proof. 12 Sizes, from 1/4" to 2 1/4" O.D. and 1/4" to 2" I.D. Order a complete set from your Refrigeration Equipment Wholesaler.

SCHAEFER BRUSH MFG. CO.
117 W. Walker St., Milwaukee 4, Wis.

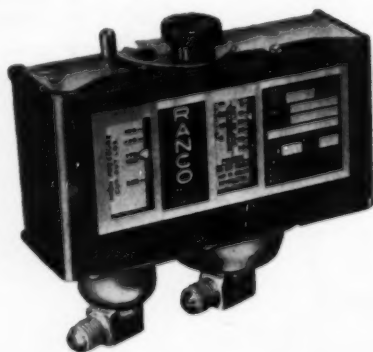
MY HUSBAND JUST COULDN'T SLEEP AT NIGHT... HE WAS ALWAYS AFRAID HE'D RUN OUT OF ANSUL OIL!!

THAT'S SILLY, ANSUL WILL HAVE PLENTY THIS YEAR

SEE PAGE 4

PERFORMANCE is the payoff!

You're playing for keeps in the refrigeration service business. That's why you must be sure when you select controls. One fact is obvious — you can't go wrong with Ranco — maker of over 50,000,000 refrigeration controls in actual use today. And you don't have to hunt for the right control — not if you visit your Ranco dealer *first*. Ranco controls are available for more than 4,000 replacement installations!



Ranco Inc.

COLUMBUS 1, OHIO

WORLD'S LARGEST MANUFACTURER OF REFRIGERATION CONTROLS

Circle No. 112 on Reader Service Card

THE SERVICE MAN'S DEPARTMENT

HERE'S HOW!

How Do You Rate As An Employer?

You probably put a lot of effort into keeping customers happy. But how about your employees? They're mighty important in your profit picture, too!

Happy workers are more productive. They're willing to give "a full hour's work for an hour's pay". That cuts your overhead. They're willing to give those important smiles and extra services. That keeps your customers happy.

By answering the following questions, you'll see how you rate as "the boss". Consider each answer carefully. Be honest with yourself.

- 1—Do you give employees adequate supervision and help with problems?
- 2—Do you assign each job to the person who can do it best?

I DO IT THIS WAY

FREEZER doors which freeze shut, and tough, brittle door gaskets can cause a lot of trouble. Here's what I do to avoid such trouble:

Clean all the ice off the edges of the door and gaskets. Then spray or wipe all the gaskets and contact points with ethylene glycol permanent type antifreeze. This should be done about every two weeks and will keep ice from forming. The gaskets will then stay soft and pliable and will seal tightly when the doors are closed.

L. W. Williamson, Lawton, Okla.

- 3—When you ask employees to work overtime, is it always absolutely necessary?
- 4—Have you considered an incentive plan such as a profit-sharing or bonus system?
- 5—Do you have a thorough training plan for new employees?



WANT TO EARN \$5 ?

You don't have to be a literary genius to pick up a fast five-spot. All you have to do is jot down some of the shortcuts you've developed in your maintenance or installation work and send them to Here's How Editor, Commercial Refrigeration and Air Conditioning. If the Editor votes "yes" on your contribution, your \$5 will be paid promptly when your maintenance tip is published in the magazine. Let's hear from you!

- 6—Is your criticism always constructive?
- 7—Do you do your job efficiently, thus setting a good example for employees?
- 8—Do you treat all employees equally?
- 9—Do you take time to answer questions clearly and completely?
- 10—Are you "easy to talk with"?
- 11—Is your store or shop planned so work can be done without wasted effort?
- 12—Are your orders easy to understand?

SCORING—If you said "yes" to all 12, you're tops. The word will get around and you'll probably be besieged by job hunters! 8-11: Most people would enjoy working for you. 5-8: You're on the right track but could stand some improvement. Under 5: It's not too late. With a little effort you can still become "the boss employees brag about".

Question Corner

Question: Is it possible for a low side float, short of gas to frost the suction line?

Answer: Where a low side float system is just slightly short of refrigerant so that the float cannot close off the needle tightly, a frosting of the suction line is possible. To check, add a small amount of refrigerant slowly with the suction valve half closed and if it still continues to frost the trouble can be blamed on the needle and seat.

I DO IT THIS WAY

HERE is an instrument I devised for accurate and low cost checking of on-and-off cycles of refrigeration units. The instrument consists of a self-starting electric clock available in 220 volt as well as 110 volt models with two small alligator clips attached to the end of the clock cord in place of the male plug.

Clip the alligator clips to the motor leads of the compressor. Synchronize your watch with the electric clock and, at the end of the testing period, the difference in time will show you both the off-period cycle and the running cycle time.

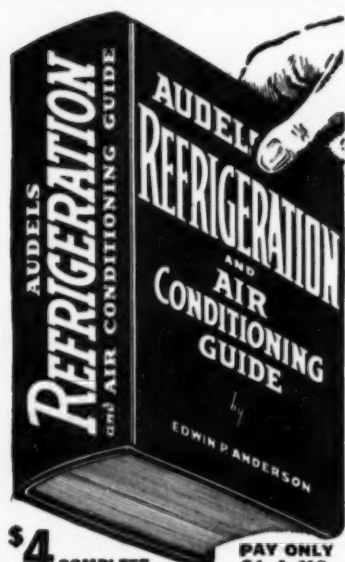
For example, let us say that the clock was installed on a unit at 8 a.m. and taken off at 8 p.m. At 8 p.m. the clock reads 4 o'clock. You know then that the compressor ran 8 hours and was off 4 hours, which means that it is running two-thirds of the time.

Jack M. Bilson, Elmira, N. Y.

Question: On an ice cream dispensing cabinet, which type of control is recommended, an automatic expansion valve, a thermostatic expansion valve (liquid charged), or a thermostatic expansion valve (gas charged)?

Answer: Theoretically, a thermostatic expansion valve, gas charged, would give satisfactory performance

Look Within!



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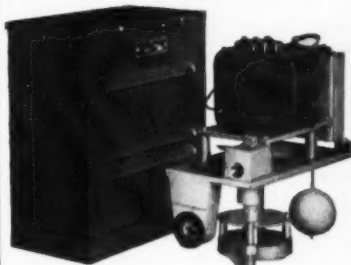
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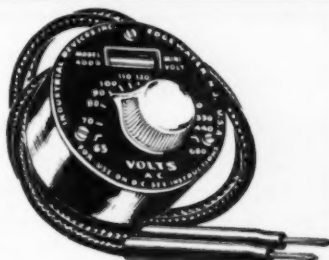
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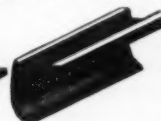
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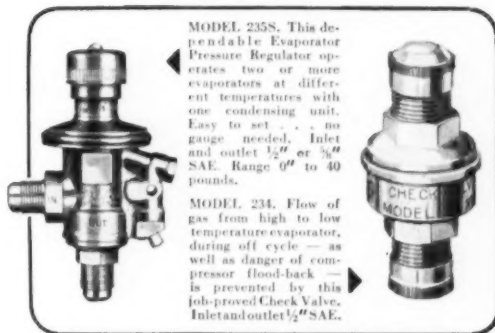
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